



RK ROSE+KRIEGER

A Phoenix Mecano Company

Multilift II product line

For any application
the best lifting column



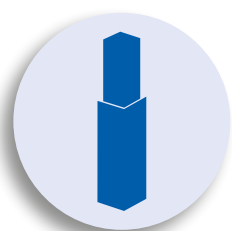
The RK linear circle

Multilift II product line



Features:

- ✓ Fully integrated technology / maintenance-free
- ✓ Self-locking, even under max. load
- ✓ Withstands torsional and bending moments
- ✓ Clear anodised aluminium profile surface
- ✓ Special versions available on request



Multilift II
from page 4

Multilift II telescope
from page 34

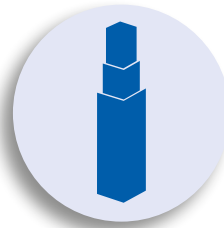
**Your application
takes
centre stage**

**Controls &
Accessories**
from page 48



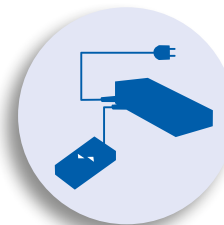
Features:

- ✓ Fully integrated technology / maintenance-free
- ✓ Self-locking, even under max. load
- ✓ Can be installed in any position
- ✓ Various speeds
- ✓ Optimum installation height/stroke length ratio
- ✓ Special versions available on request



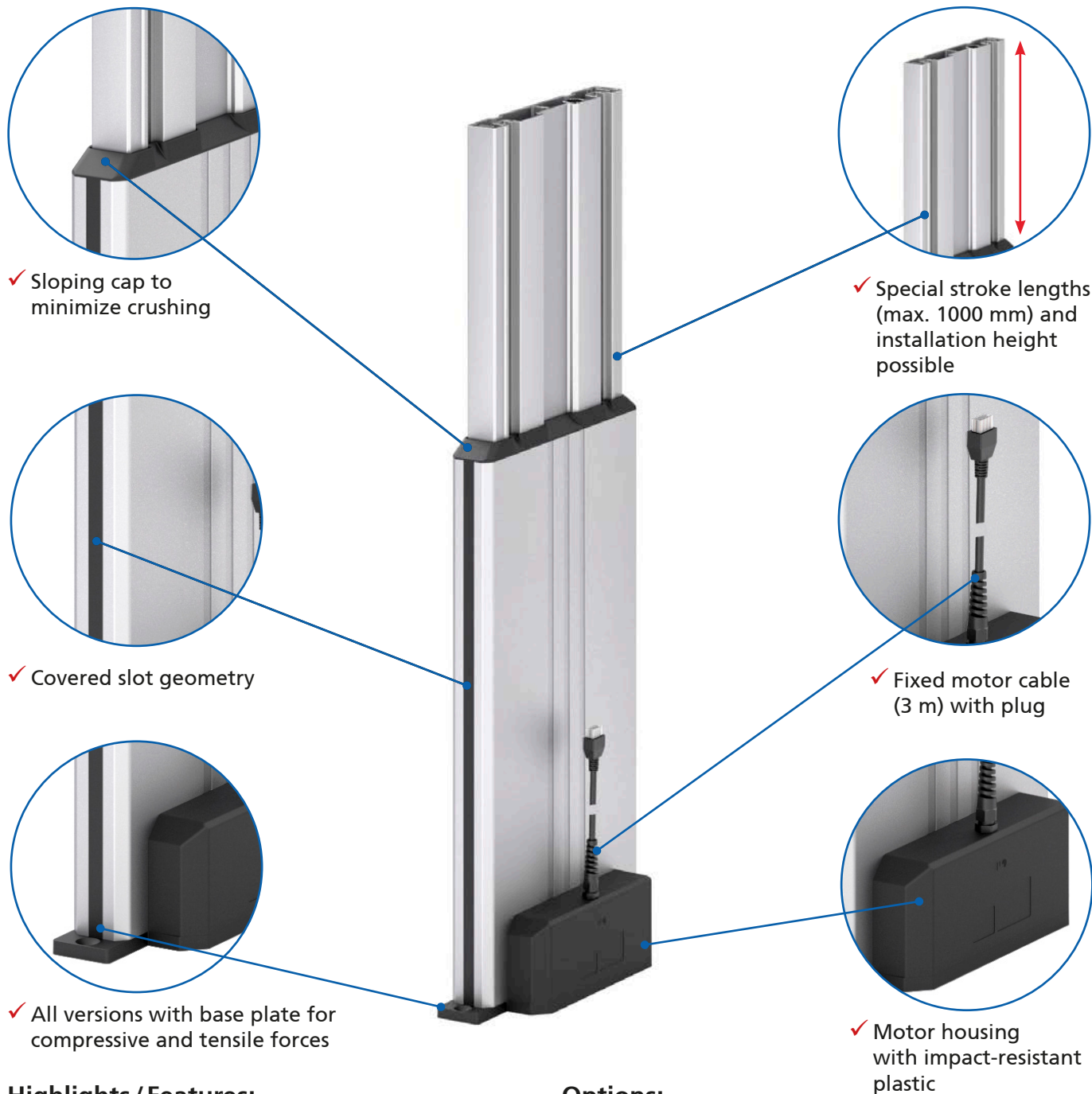
Features:

- ✓ Connection for up to 32 drives (bus system)
- ✓ Memory function
- ✓ Visual status indication
- ✓ Standardised Modbus (RTU) protocol
- ✓ Guided start-up
- ✓ Automatic BUS search





Slimline design makes for great versatility



Highlights / Features:

- Integrated limit switches
- Self-locking, even at max. load
- Lateral fixing slot in external profile
- Position feedback by hall sensor

Options:

- Special stroke lengths and installation height available on request
- With synchronous control:
 - Cascading of several columns
- Customised solutions on request
- Tested to:
 - IEC 60601-1:2005
 - IEC 60601-1:2005/AMD1:2012
- With milled slot on request

Multilift II – Table of contents

Versions	Lifting columns	<ul style="list-style-type: none">■ Multilift II Page 6■ Multilift II ESD Page 10■ Multilift II impact Page 12■ Multilift II safety..... Page 14■ Multilift II clean Page 16
Accessories	Fixing	<ul style="list-style-type: none">■ RK SyncFlex..... Page 19■ Assembly plates..... Page 21■ Support struts..... Page 21■ Foot versions Page 22

Multilift II – Technical data

General information/operating conditions

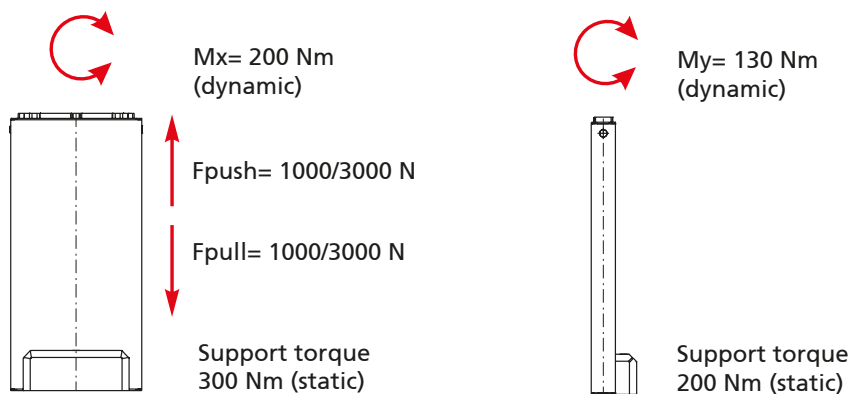
Type	Multilift II	Multilift II ESD	Multilift II clean	Multilift II impact	Multilift II safety	Custom
Design	Slim lifting column					
Guide	POM slide bearings					
Installation position	Any position / hanging only with drop protection provided by the customer				hanging	
Push force	3000 N or 1000 N			3000 N	–	
Pull force	3000 N or 1000 N			3000 N	600 N	
Self-locking	Yes					
Max. travel speed	8 mm/s or 16 mm/s			8 mm/s	16 mm/s	
Max. Stroke	500 mm					1000 mm
Installation dimension	Stroke + 203 mm			Stroke + 212 mm	Stroke + 203 mm	
Voltage	28 V DC					
Current output	4 A					
Protection class	IP 20					
Ambient temperature	+5°C to +40°C					
Displacement during synchronous operation	0 to 2 mm				Synchronous operation not possible	
Duty cycle (Operation mode S3)	At nominal load, 10% (2 min operating time, 18 mins rest time)					

Note:

All information refers to the standard sizes. All data of push/pull forces are referring to the individual lifting column, for combined applications a safety factor of up to 0,6 has to be considered.

In medical applications, the maximum pull force of 500 N and, in the case of the version with a travel speed of 8 mm/s, the maximum push force of 2500 N must not be exceeded.

Load data Multilift II



Drive	Push force [N]	Travel speed [mm/s]	Number of assigned motor channels			
			1	2	3	4
Multilift II	1000	16	✓	✓	✓	each 750 N
Multilift II	3000	8	✓	✓	each 2200 N	each 1500 N
Multilift II safety	600	16	✓	–	–	–
			MultiControl II duo		MultiControl II quadro	

Note:

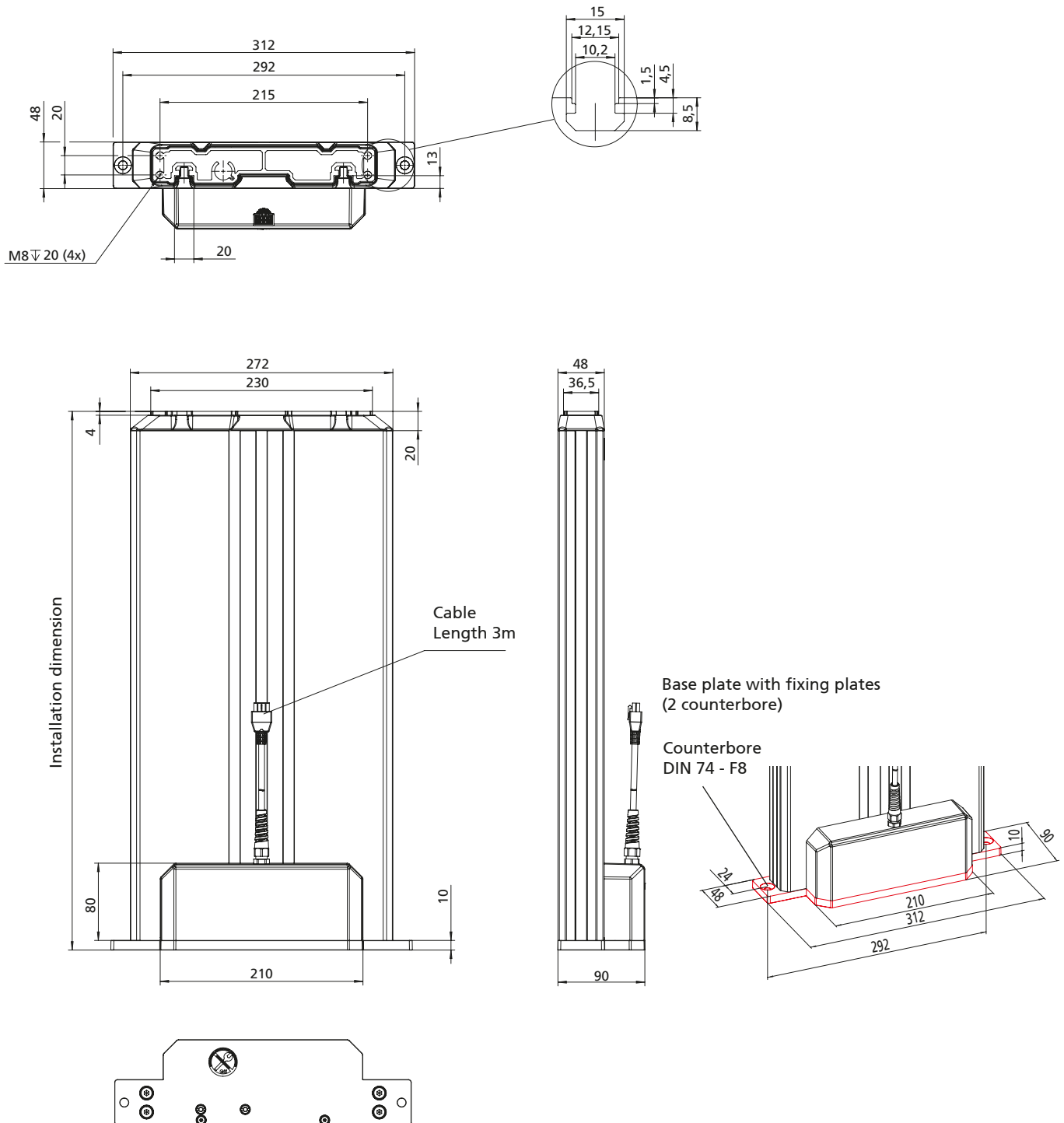
If more than 2 drives are to be operated synchronously at nominal load, BUS communication between two or more MultiControl II duo controllers is required.

The necessary accessories can be found on page 66.

The procedure for setting up BUS communication is described in detail in the operating manual.



Multilift II / ESD / impact / safety / clean



The fixing slots on the side allow an easy attachment of accessories. For example, a screen, CPU bracket or system reinforcements can be fixed to the lifting columns by using slot stones. The 30 slot geometry is also compatible with the RK BLOCAN® aluminium profile system.

Multilift II – Versions

Multilift II – maximum versatility

Customer feedback formed the basis for a number of improvements to the design of the Multilift II. Our latest new feature is an assembly slot on both sides of the external profile of the electric lifting column, which is compatible with the RK Rose+Krieger aluminium profile system and can take corresponding slot stones. They allow additional attachments such as reinforcements, screening and so on to be mounted without any problems.



Special features:

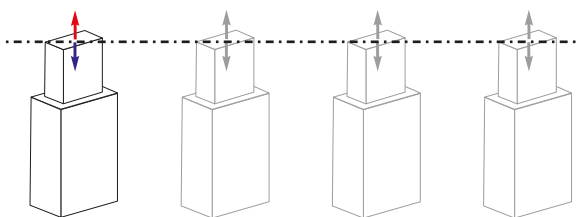
- Lateral fixing slots
- Captive plug connections
- Suitable for both tensile and compressive loads

Ideal area of application:

- ✓ Workplace ergonomics
- ✓ Industrial technology
- ✓ Media technology

Lifting column and control as individual components:

Multilift II can be used exclusively in combination with MultiControl II duo (see page 50) and MultiControl II quadro (see page 58)

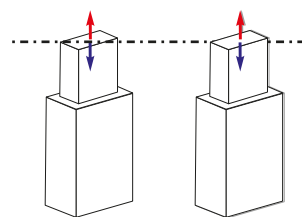


Features:

- Supports configuration of systems with up to 32 drives
- Wide-range input
- High duty cycle
- Simple connection to master control system
- Intuitive operation

Lifting column and control as pre-assembled set:

Multilift II can be used exclusively in combination with Compact-e-3-EU (see page 78)



Features:

- Exclusively for a 2-column table system
- System is factory-initialised (Plug & Play)

Individual components:

Lifting column Multilift II



Code No.	Type	max. push force [N]	max. pull force [N]	max. lifting speed [mm/s]	Total travel [mm]	Installation dimension [mm]	Weight [kg]
TM22B1C3C22CA0355	Multilift II	3000 / 2500 (med.)	3000 / 500 (med.)	8	355	558	10.5
TM22B1C3C22CA0400					400	603	11.5
TM22B1C3C22CA0450					452	658	12.0
TM22B1C3C22CA0500					497	703	13.0
TM22B1C2C22CA0355	Multilift II	1000 / 1000 (med.)	1000 / 500 (med.)	16	355	558	10.5
TM22B1C2C22CA0400					400	603	11.5
TM22B1C2C22CA0450					452	658	12.0
TM22B1C2C22CA0500					497	703	13.0

System components

Code No.	Accessories	
Controls		
QST11H12AA000	MultiControl II duo - Basic	Multilift II
QST11H12AA022	MultiControl II duo - Premium	
QST11H14AA000	MultiControl II quadro - Basic	Multilift II
QST11H14AA022	MultiControl II quadro - Premium	
Hand switches		
QZB11G07AV041	Hand switch with 6 function keys and display – 1 m cable lenth	
QZB11G07AB041	Hand switch with 2 function keys – 1 m cable lenth	
QZD000074	Hand switch drawer for hand switch with 6 and 2 function keys	
IEC connector		
QZD070618	IEC cable (Europe version, earthed plug)	

Note: Further accessories (hand switches, connecting cables etc.) on page 66.

Set:

Multilift II in combination with Compact-e-3-EU control

Scope of delivery:

2 Multilifts II, 1 Controller box
Compact-e-3-EU, 4 Cover profiles,
4 Slot stones

Order instruction:

Please select mains cable and
hand switch separately
(see page 79)

Code No.	Type	max. push force [N]	max. pull force [N]	max. lifting speed [mm/s]	Total travel [mm]	Installation dimension [mm]	Weight [kg]
TS22B1C3C22CA0355	Multilift II Set 230V AC	3000	3000	8	355	558	21.5
TS22B1C3C22CA0400					400	603	23.5
TS22B1C3C22CA0450					452	658	24.5
TS22B1C3C22CA0500					497	703	26.5
TS22B1C2C22CA0355	Multilift II Set 230V AC	1000	1000	16	355	558	21.5
TS22B1C2C22CA0400					400	603	23.5
TS22B1C2C22CA0450					452	658	24.5
TS22B1C2C22CA0500					497	703	26.5

Note: The load value information is referring to the individual lifting column. For combined applications a safety factor of up to 0,6 has to be considered.

Multilift II ESD – Versions

Multilift II ESD – discharging voltages via the lifting column

In the electronics and semiconductor manufacturing industry, electrostatic discharges can impair the function of components being assembled, or even destroy them. With the Multilift II ESD, RK Rose+Krieger has developed a patented electric height adjustment system that is able to dissipate voltages.



Special feature:

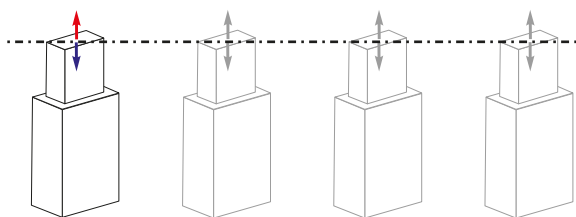
- Outer and inner profile electrically connected to each other

Ideal area of application:

- ✓ Assembly workstations for the manufacture of electronic components

Lifting column and control as individual components:

Multilift II ESD can be used exclusively in combination with MultiControl II duo (see page 50) and MultiControl II quadro (see page 58).



Features:

- Supports configuration of systems with up to 32 drives
- Wide-range input
- High duty cycle
- Simple connection to master control system
- Intuitive operation

Individual components:

Lifting column Multilift II ESD



Code No.	Type	max. push force [N]	max. pull force [N]	max. lifting speed [mm/s]	Total travel [mm]	Installation dimension [mm]	Weight [kg]
TM22B1C3C22CC0355	Multilift II ESD	3000 / 2500 (med.)	3000 / 500 (med.)	8	355	558	10.5
TM22B1C3C22CC0400					400	603	11.5
TM22B1C3C22CC0450					452	658	12.0
TM22B1C3C22CC0500					497	703	13.0
TM22B1C2C22CC0355	Multilift II ESD	1000 / 1000 (med.)	1000 / 500 (med.)	16	355	558	10.5
TM22B1C2C22CC0400					400	603	11.5
TM22B1C2C22CC0450					452	658	12.0
TM22B1C2C22CC0500					497	703	13.0

System components

Code No.	Accessories	
Controls		
QST11H12AA000	MultiControl II duo - Basic	Multilift II ESD
QST11H12AA022	MultiControl II duo - Premium	
QST11H14AA000	MultiControl II quadro - Basic	Multilift II ESD
QST11H14AA022	MultiControl II quadro - Premium	
Hand switches		
QZB11G07AV041	Hand switch with 6 function keys and display – 1 m cable lenth	
QZB11G07AB041	Hand switch with 2 function keys – 1 m cable lenth	
QZD000074	Hand switch drawer for hand switch with 6 and 2 function keys	
IEC connector		
QZD070618	IEC cable (Europe version, earthed plug)	

Note: Further accessories (hand switches, connecting cables etc.) on page 66.

Multilift II impact – Versions

Multilift II impact – integrated damping absorbs high impact forces

The slim electric height adjustment system has an integrated damping system that is able to absorb high impact forces, such as those that occur when unloading a workpiece.



Special feature:

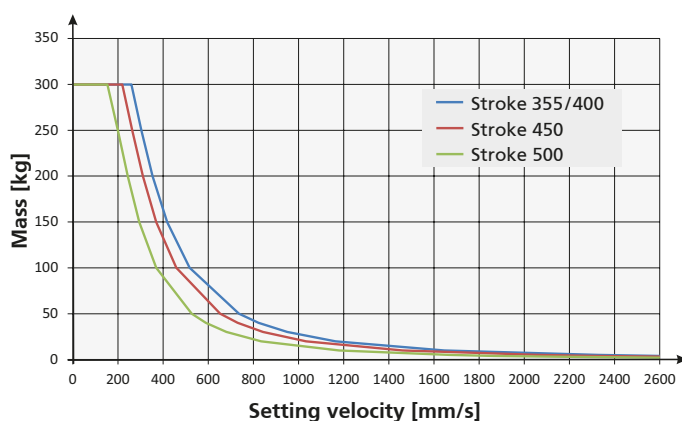
- Allows impact forces due to an internal damping system

Ideal area of application:

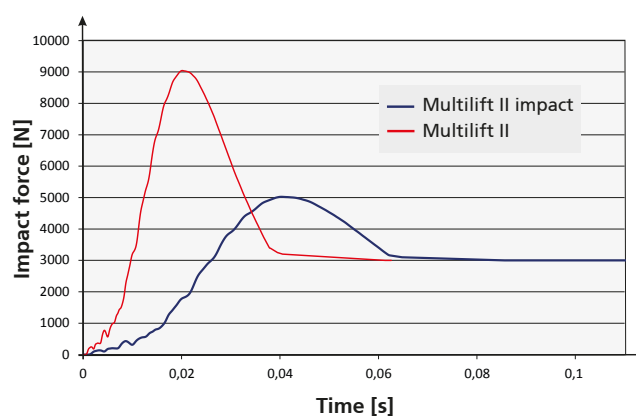
- ✓ Workplace ergonomics
- ✓ Industrial technology

Performance diagram Multilift II impact

Possible setting velocity in relation to the weight of the workpiece in consideration of the different stroke lengths



Exemplary force progression at an impact of a workpiece with $v = 260$ [mm/s] and $m = 300$ [Kg]



Individual components:

Lifting column Multilift II impact



Code No.	Type	max. push force [N]	max. pull force [N]	max. lifting speed [mm/s]	Total travel [mm]	Installation dimension [mm]	Weight [kg]
TM22B1C3C22CB0355	Multilift II impact	3000 / 2500 (med.)	3,000 / 500 (med.)	8	355	567	10.5
TM22B1C3C22CB0400					400	612	11.5
TM22B1C3C22CB0450					452	667	12.0
TM22B1C3C22CB0500					497	712	13.0

System components

Code No.	Accessories	
Controls		
QST13H12AA000	MultiControl II duo - Basic	Multilift II impact
QST13H12AA022	MultiControl II duo - Premium	
QST13H14AA000	MultiControl II quadro - Basic	Multilift II impact
QST13H14AA022	MultiControl II quadro - Premium	
Hand switches		
QZB11G07AV041	Hand switch with 6 function keys and display – 1 m cable lenth	
QZB11G07AB041	Hand switch with 2 function keys – 1 m cable lenth	
QZD000074	Hand switch drawer for hand switch with 6 and 2 function keys	
IEC connector		
QZD070618	IEC cable (Europe version, earthed plug)	

Note: Further accessories (hand switches, connecting cables etc.) on page 66.

Multilift II safety – Versions

Multilift II safety – turning things on their head

RK Rose+Krieger has developed this column specially for overhead applications in media technology. Its uses include the correct positioning of projectors and monitors, whereby the lifting column is mounted upside down on the ceiling.



Special feature:

- Integrated fall protection

Ideal area of application:

- ✓ Media technology



The Multilift II safety is only designed for centric load.



In cases of eccentric load
please contact RK Rose+Krieger.

<https://www.rk-rose-krieger.com/english/contact/>

Individual components:

Lifting column Multilift II safety

Code No.	Type	max. push force [N]	max. pull force [N]	max. lifting speed [mm/s]	Total travel [mm]	Installation dimension [mm]	Weight [kg]
TM22B1C2C22CD0355	Multilift II safety	–	600	16	355	558	11.5
TM22B1C2C22CD0400					400	603	12.0
TM22B1C2C22CD0450					452	658	13.0
TM22B1C2C22CD0500					497	703	13.5

Note: The Multilift II safety is not designed for synchronous applications.
This drive must only be used in stand-alone applications.

System components

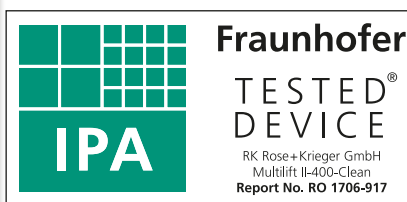
Code No.	Accessories	
Controls		
QST11H12AA000	MultiControl II duo - Basic	Multilift II safety
QST11H12AA022	MultiControl II duo - Premium	
Hand switches		
QZB11G07AV041	Hand switch with 6 function keys and display – 1 m cable lenth	
QZB11G07AB041	Hand switch with 2 function keys – 1 m cable lenth	
QZD000074	Hand switch drawer for hand switch with 6 and 2 function keys	
IEC connector		
QZD070618	IEC cable (Europe version, earthed plug)	

Note: Further accessories (hand switches, connecting cables etc.) on page 66.

Multilift II clean – Versions

Multilift II clean – ideally suited to use in the clean room

The Multilift II clean has now been added to the range. It has been deliberately developed for use in the clean room. A special shroud for the DC motor with brushes of the lifting column means discharge of particles is kept to a minimum. To verify its suitability for use in clean rooms, the Fraunhofer Institute for Manufacturing Engineering and Automation IPA carried out a particle emissions test as per DIN EN ISO 14644-1 and certified the lifting column for use in clean rooms up to a globally valid class 4.



Special feature:

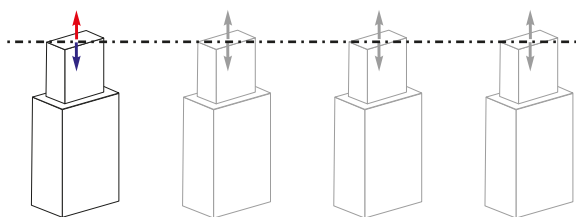
- Suitability according to EN ISO 14644 -1 for clean rooms

Ideal area of application:

- ✓ Assembly workstations for the use in clean rooms up to class 4

Lifting column and control as individual components:

Multilift II clean can be used exclusively in combination with MultiControl II duo (see page 50) and MultiControl II quadro (see page 58).



Features:

- Supports configuration of systems with up to 32 drives
- Wide-range input
- High duty cycle
- Simple connection to master control system
- Intuitive operation

Individual components:

Lifting column Multilift II clean

Code No.	Type	max. push force [N]	max. pull force [N]	max. lifting speed [mm/s]	Total travel [mm]	Installation dimension [mm]	Weight [kg]
TM22B1C3C22CE0355	Multilift II clean	3000	3000	8	355	558	10.5
TM22B1C3C22CE0400					400	603	11.5
TM22B1C3C22CE0450					452	658	12.0
TM22B1C3C22CE0500					497	703	13.0
TM22B1C2C22CE0355	Multilift II clean	1000	1000	16	355	558	10.5
TM22B1C2C22CE0400					400	603	11.5
TM22B1C2C22CE0450					452	658	12.0
TM22B1C2C22CE0500					497	703	13.0

System components

Code No.	Accessories	
Controls		
QST11H12AA000	MultiControl II duo - Basic	Multilift II clean
QST11H12AA022	MultiControl II duo - Premium	
QST11H14AA000	MultiControl II quadro - Basic	Multilift II clean
QST11H14AA022	MultiControl II quadro - Premium	
Hand switches		
QZB11G07AV041	Hand switch with 6 function keys and display – 1 m cable lenth	
QZB11G07AB041	Hand switch with 2 function keys – 1 m cable lenth	
QZD000074	Hand switch drawer for hand switch with 6 and 2 function keys	
IEC connector		
QZD070618	IEC cable (Europe version, earthed plug)	

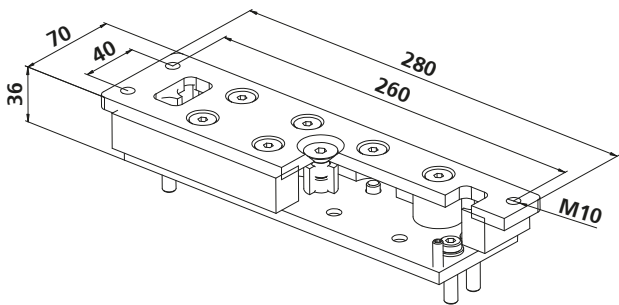
Note: Further accessories (hand switches, connecting cables etc.) on page 66.

RK SyncFlex H

Scope of delivery:
Adjuster plate, incl. fixing material

Horizontal alignment

- To prevent locked-up stress in mechanically overdefined bearing systems (more than one fixed bearing) around the horizontal axis. With RK SyncFlex H, defined floating bearings supplement the application.
- The horizontal compensation in the Z-axis enables the mobility required when moving the lifting columns.



Code No.	Type	Max. load	Multilift II	
			Internal profile	External profile
QZD020471	Multilift II product line	3000 N	●	

RK SyncFlex V

Scope of delivery:

Adjuster plate, incl. fixing material

Option:

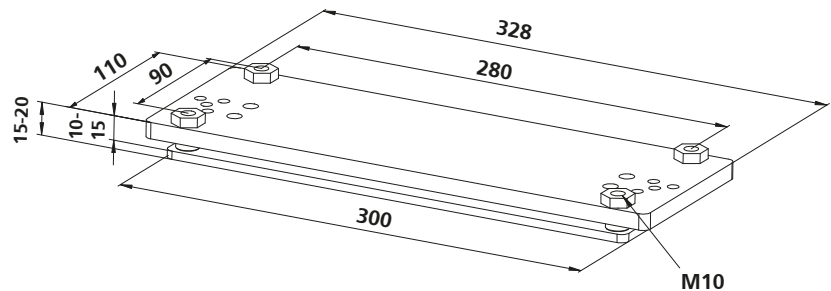
Pressure plate (see table) can be ordered separately

Vertical alignment

- If the lifting columns are not parallel, the distance between the two upper fixing points will change during the movement. However, a rigid connection keeps this distance constant, which means that the lifting columns are subject to very strong forces.

RK SyncFlex V enables the compensation of unevenness in the mounting environment.

- The lifting columns can be aligned via the vertical adjustment around the X-Y axes.



					[mm]
Code No.	Type	Max. load	Multilift II		
			Internal profile	External profile	
RK SyncFlex V Adjusting plate					
QZD020620	Multilift II product line	3000 N	● *	●	
Pressure Plate					
QZD020621	Multilift II product line	3000 N			

●* = in connection with the assembly plate Type 2 (page 21)

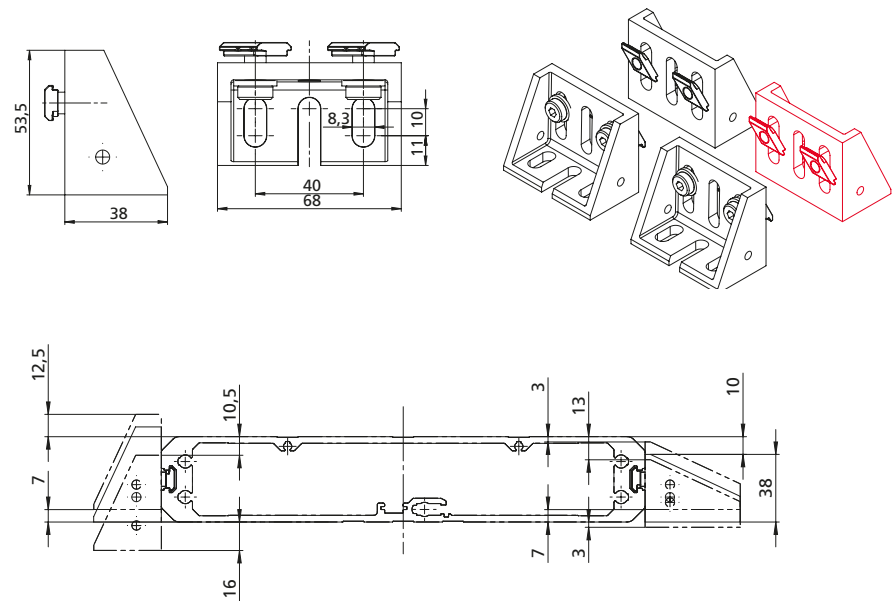
Mounting bracket for Multilift II



■ The mounting brackets are used to fix the lifting column horizontally or vertically by means of the fixing slots on the outer profile of the Multilift II. Also suitable for ESD applications.

Material:
Aluminium die cast

Scope of delivery:
One mounting bracket including mounting material



Code No.	Type	Max. load	Multilift II	
			Internal profile	External profile
QZD020745	Multilift II mounting bracket	3000 N		●

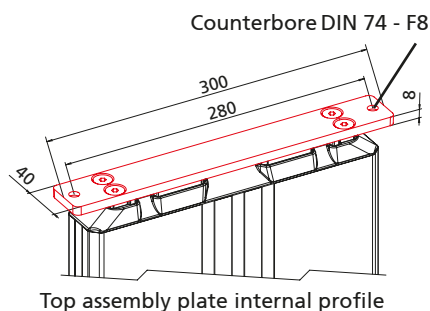
Assembly plates

- The assembly plates are for easy assembling in customer applications.

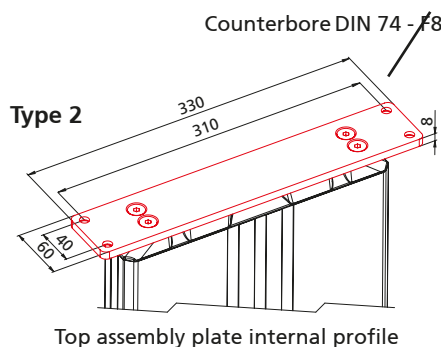
Material:

Option of black-powdered die cast zinc or black-powdered steel, zinc plated fixing set

Type 2



Type 3



Scope of delivery:

Plate with fixing set

Code No.	Type	for drive	Material	Multilift II	
				Internal profile	External profile
QZD020549	2	Multilift II/ clean	Zinc die cast	●	
QZD020671	2	Multilift II ESD	Zinc die cast	●	
QZD020552	3	Multilift II/impact/safety/clean/ESD	Steel	●	

Support struts

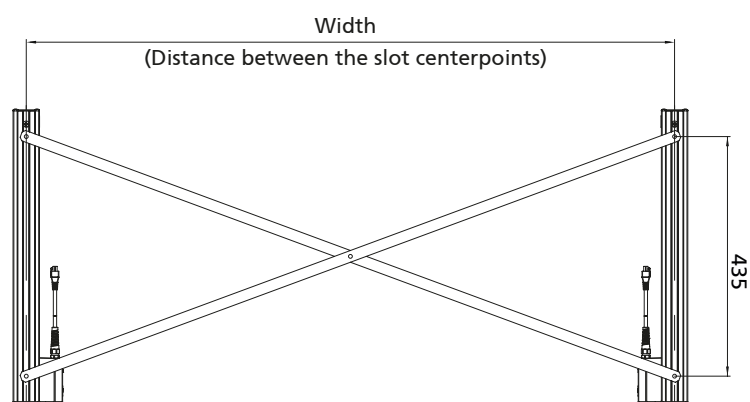
- For stabilisation of column structures.
- Available for all Multilift II / Multilift II telescope variants.

Material:

Aluminium not anodized

Scope of delivery:

Two support struts including fastenings



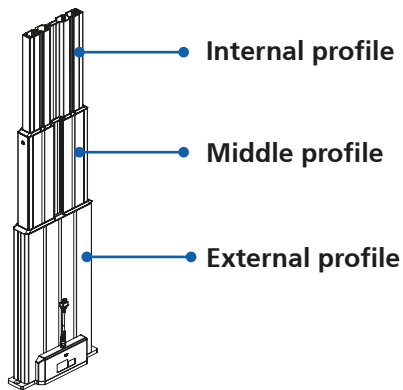
[mm]

Code No.	Type	Width (min.)	Width (max.)	Multilift II	
				Internal profile	External profile
QZD020734	Support struts Multilift II product line	750 mm	2000 mm		●

Distance between the slot centerpoints [mm]

Multilift II – Accessories

Foot versions



- Different foot versions for the Multilift
- No modifications of the Multilift required

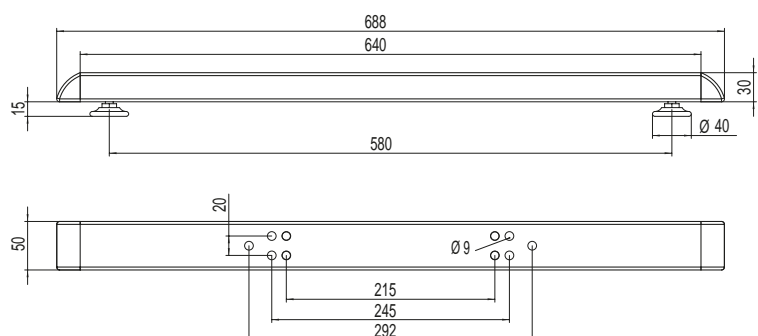
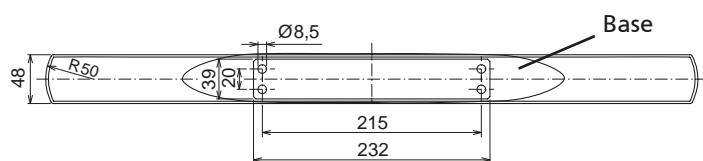
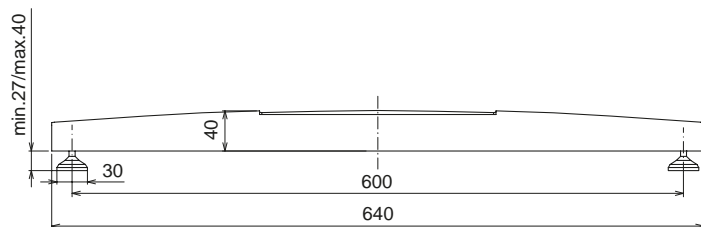
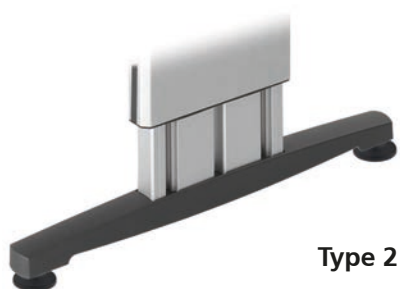
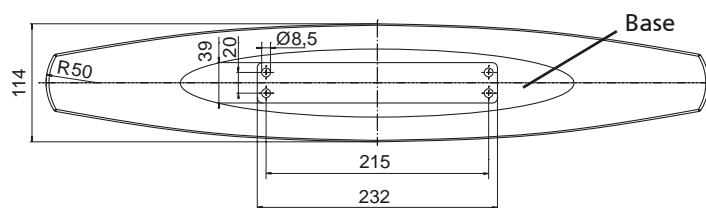
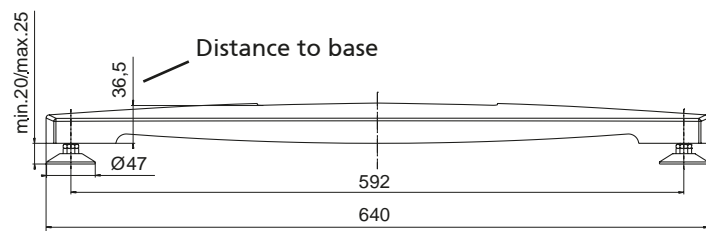
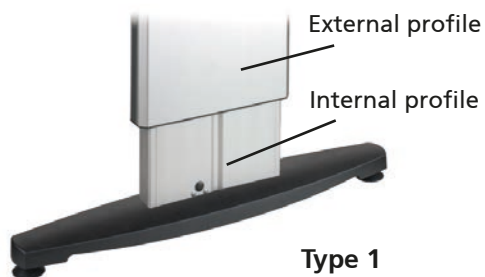
Material:

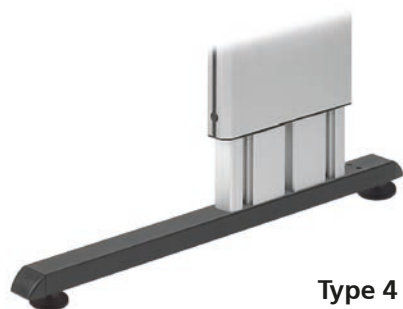
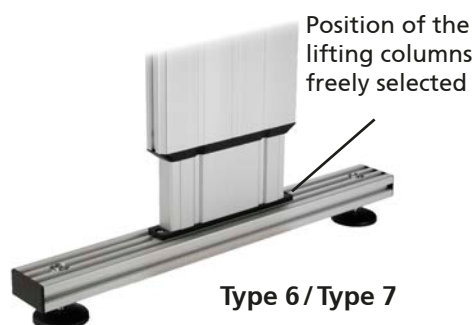
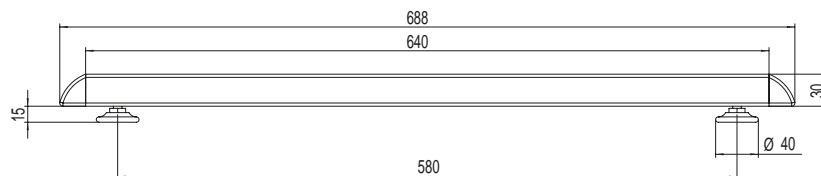
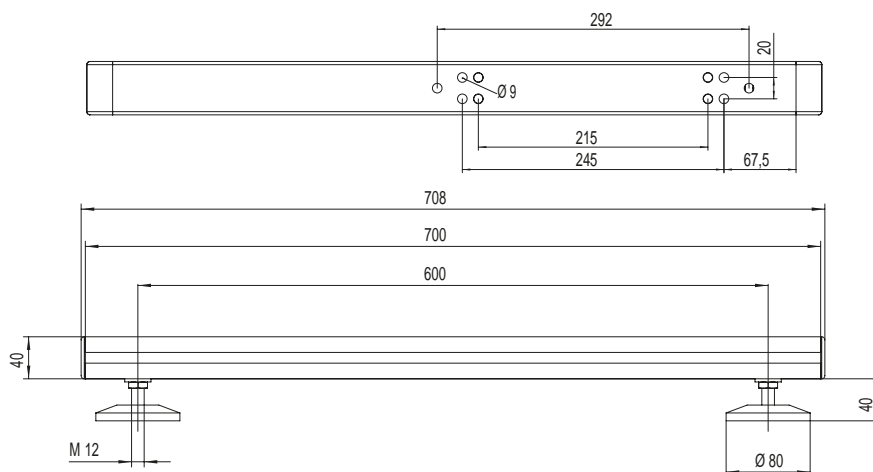
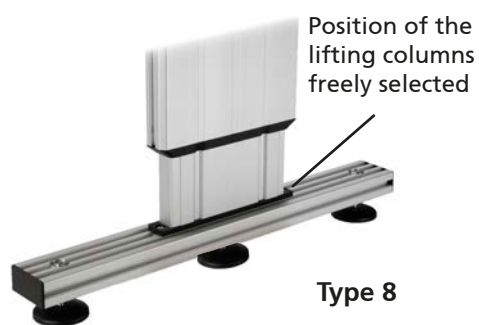
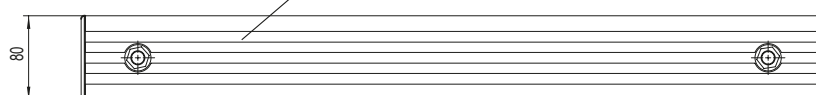
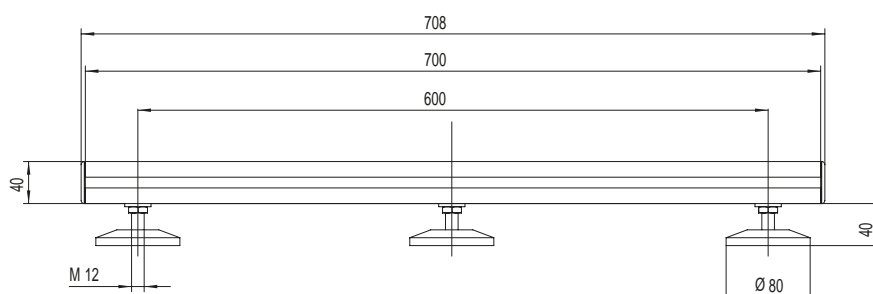
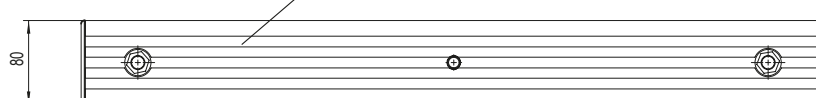
Type 1/2 GK-ALSi12/3.2583.02, black powder-coated

Type 3/4 steel tube, ends capped black powder-coated

Scope of delivery:

one foot with fixing set




Type 4

Type 6 / Type 7

Slot geometry 40

Type 8

Slot geometry 40

***Order instruction:**

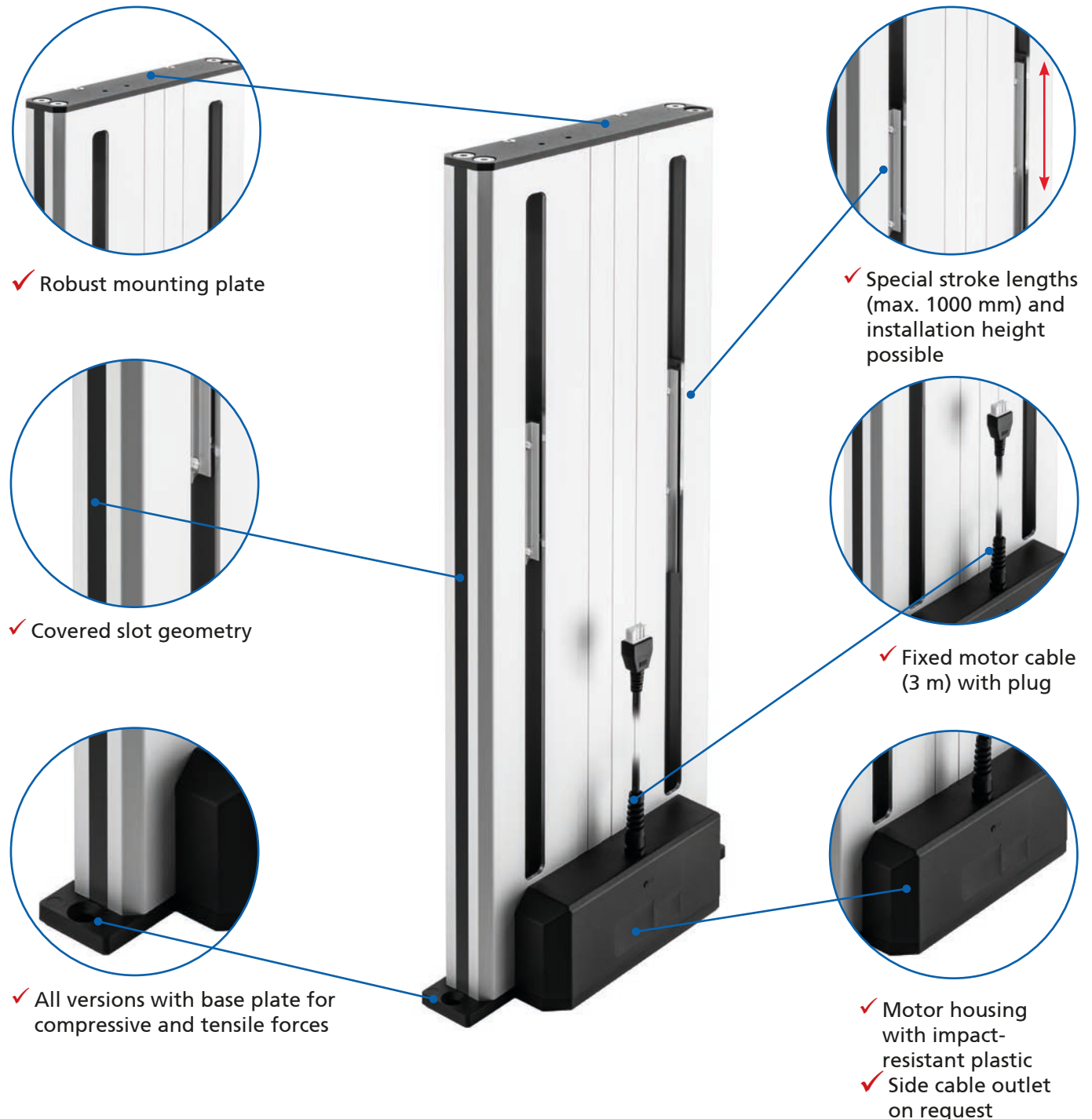
The application example shown – internal profile mounted on Type 6, 7, 8 – is only in combination with an assembly plate possible (see page 21)

Code No.	Type	Max. load	Multilift II / Multilift II clean		Multilift II ESD		Multilift II impact	
			Internal profile	External profile	Internal profile	External profile	Internal profile	External profile
QZD020252	1	1000 N	●					
QZD020253	2	1000 N	●					
QZD020254	3	1000 N	●	●				
QZD020255	4	1000 N	●	●				
QZD020256	6	3000 N	●*	●				
QZD020257	7	3000 N			●*	●		
QZD020258	8	3000 N					●*	●

Multilift II with internal carriage

Slimline design makes for great versatility

NEW



Highlights / Features:

- Integrated limit switches
- Self-locking, even at max. load
- Lateral fixing slot in external profile
- Position feedback by hall sensor

Options:

- Special stroke lengths and installation height available on request
- With synchronous control:
 - Cascading of several columns
- Customised solutions on request

Multilift II – Table of contents

Versions	Lifting columns	<ul style="list-style-type: none">■ Multilift II with internal carriage Page 26
Accessories	Fixing	<ul style="list-style-type: none">■ RK SyncFlex..... Page 30■ Mounting bracket Page 29■ Support struts..... Page 31■ Foot versions Page 32

Multilift II with internal carriage – Technical data

General information/operating conditions

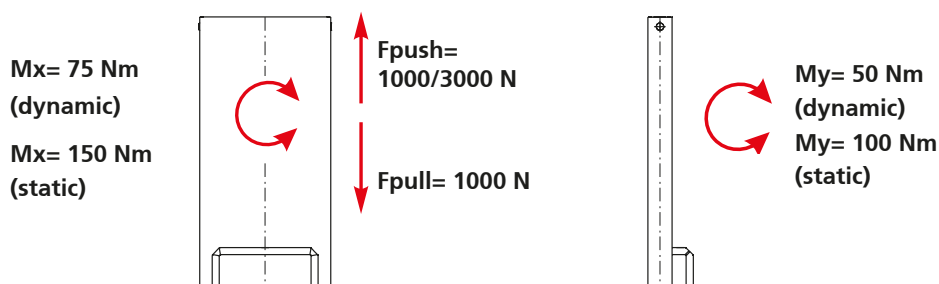
Type	Multilift II with internal carriage	Custom
Design	Slim lifting column	
Guide	POM slide bearings	
Installation position	Any position / hanging only with drop protection provided by the customer	
Push force	3000 N or 1000 N	
Pull force	3000 N or 1000 N	
Self-locking	Yes	
Max. travel speed	8 mm/s or 16 mm/s	
Max. Stroke	500 mm	1000 mm
Installation dimension	Stroke + 210 mm	
Voltage	28 V DC	
Current output	4 A	
Protection class	IP 10	
Ambient temperature	+5°C to +40°C	
Displacement during synchronous operation	0 to 2 mm	
Duty cycle (Operation mode S3)	At nominal load, 10% (2 min operating time, 18 mins rest time)	

Note:

All information refers to the standard sizes. All data of push/pull forces are referring to the individual lifting column, for combined applications a safety factor of up to 0,6 has to be considered.

In medical applications, the maximum pull force of 500 N and, in the case of the version with a travel speed of 8 mm/s, the maximum push force of 2500 N must not be exceeded.

Load data Multilift II with internal carriage



Drive	Push force [N]	Travel speed [mm/s]	Number of assigned motor channels			
			1	2	3	4
Multilift II with internal carriage	1000	16	✓	✓	✓	each 750 N
Multilift II with internal carriage	3000	8	✓	✓	each 2200 N	each 1500 N
			MultiControl II duo		MultiControl II quadro	

Note:

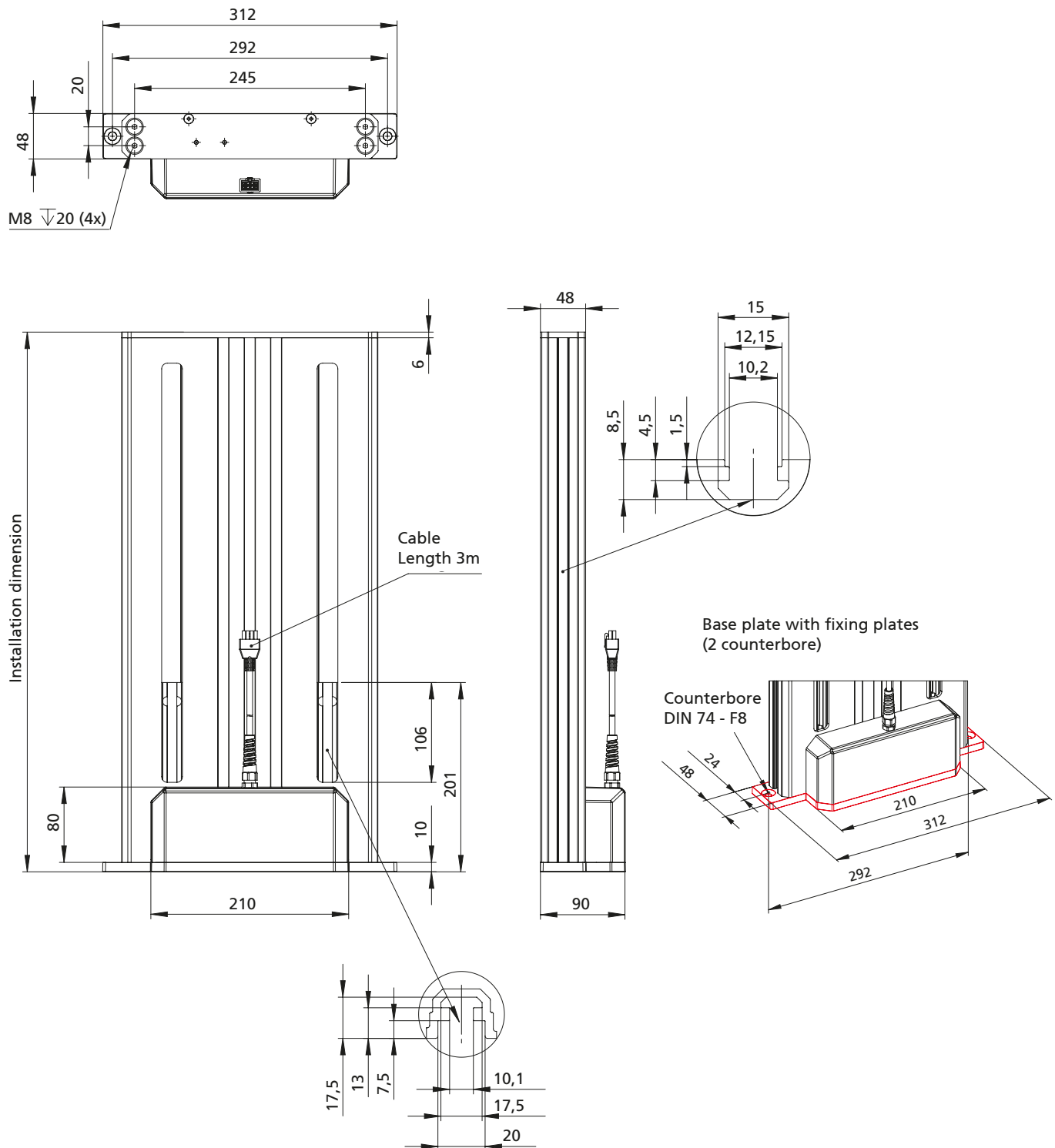
If more than 2 drives are to be operated synchronously at nominal load, BUS communication between two or more MultiControl II duo controllers is required.

The necessary accessories can be found on page 66

The procedure for setting up BUS communication is described in detail in the operating manual.



Multilift II with internal carriage



The fixing slots on the side allow an easy attachment of accessories. For example, a screen, CPU bracket or system reinforcements can be fixed to the lifting columns by using slot stones. The 30 slot geometry is also compatible with the RK BLOCAN® aluminium profile system.

Multilift II with internal carriage – Versions

Multilift II with internal carriage – maximum versatility

Customer feedback formed the basis for a number of improvements to the design of the Multilift II. Our latest new feature is an assembly slot on both sides of the external profile of the electric lifting column, which is compatible with the RK Rose+Krieger aluminium profile system and can take corresponding slot stones. They allow additional attachments such as reinforcements, screening and so on to be mounted without any problems.



Special features:

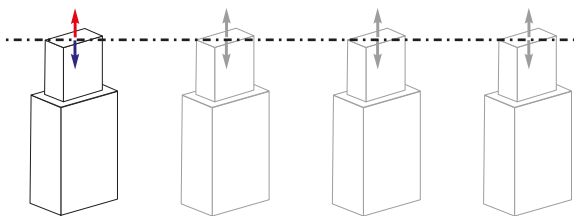
- Lateral fixing slots
- Captive plug connections
- Suitable for both tensile and compressive loads
- Internal carriage

Ideal area of application:

- ✓ Workplace ergonomics
- ✓ Industrial technology
- ✓ Media technology
- ✓ Materials handling

Lifting column and control as individual components:

Multilift II can be used exclusively in combination with MultiControl II duo (see page 50) and MultiControl II quadro (see page 58).



Features:

- Supports configuration of systems with up to 32 drives
- Wide-range input
- High duty cycle
- Simple connection to master control system
- Intuitive operation

Individual components:

Multilift II with internal carriage



Code No.	Type	max. push force [N]	max. pull force [N]	max. lifting speed [mm/s]	Total travel [mm]	Installation dimension [mm]	Weight [kg]
TM24B1C3C22CF0362	Multilift II with internal carriage	3000 / 2500 (med.)	3000 / 500 (med.)	8	362,5	573	9,2
TM24B1C3C22CF0407					407,5	618	9,6
TM24B1C3C22CF0460					460	670	10
TM24B1C3C22CF0505					505	715	10,5
TM24B1C2C22CF0362	Multilift II with internal carriage	1000 / 1000 (med.)	1000 / 500 (med.)	16	362,5	573	9,2
TM24B1C2C22CF0407					407,5	618	9,6
TM24B1C2C22CF0460					460	670	10
TM24B1C2C22CF0505					505	715	10,5

System components

Code No.	Accessories	
Controls		
QST11H12AA000	MultiControl II duo - Basic	Multilift II / Multilift II with internal carriage
QST11H12AA022	MultiControl II duo - Premium	
QST11H14AA000	MultiControl II quadro - Basic	Multilift II / Multilift II with internal carriage
QST11H14AA022	MultiControl II quadro - Premium	
Hand switches		
QZB11G07AV041	Hand switch with 6 function keys and display – 1 m cable lenth	
QZB11G07AB041	Hand switch with 2 function keys – 1 m cable lenth	
QZD000074	Hand switch drawer for hand switch with 6 and 2 function keys	
IEC connector		
QZD070618	IEC cable (Europe version, earthed plug)	

Note: Further accessories (hand switches, connecting cables etc.) can be found in the chapter „Controls and accessories“ starting on page 66.

Multilift II – Accessories

RK SyncFlex V

Scope of delivery:

Adjuster plate, incl. fixing material

Option:

Pressure plate (see table) can be ordered separately

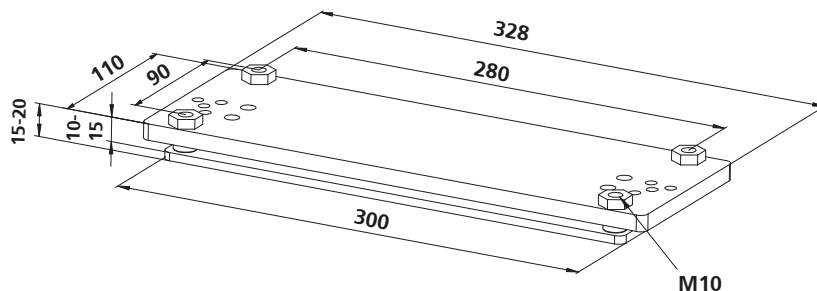


Vertical alignment

- If the lifting columns are not parallel, the distance between the two upper fixing points will change during the movement. However, a rigid connection keeps this distance constant, which means that the lifting columns are subject to very strong forces.

RK SyncFlex V enables the compensation of unevenness in the mounting environment.

- The lifting columns can be aligned via the vertical adjustment around the X-Y axes.



[mm]

Code No.	Type	Max. load	Multilift II	
			Internal profile	External profile
RK SyncFlex V Adjusting plate				
QZD020620	Multilift II product line	3000 N	● *	●
Pressure Plate				
QZD020621	Multilift II product line	3000 N		

Adaptor bar

- Cross struts from the BLOCAN® Profile Assembly System are used to increase the stability of two version Multilift II with internal carriage. The adaptor bar is suitable for F profile 40 x 80 L and F 30x60.

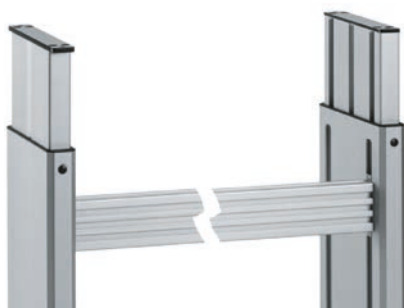
Material:

AlMgSi 0,5

Fixing set, zinc plated

Scope of delivery:

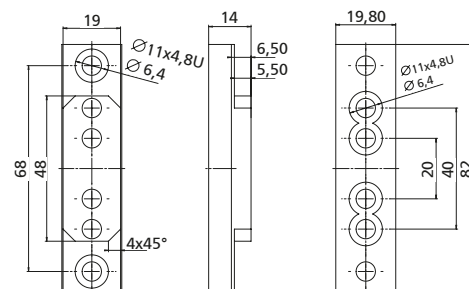
2x adaptor bars, fixing set



BLOCAN®-Profile F 30x60 as cross strut

Slot stones, -L- M6 4046204

Adaptor bar



Code No.	Version
QZD020020	Adaptor bar for BLOCAN® profiles
4285000	Profile* F-40 x 80-L, can be cut to specification



Length (clear width between the Multilifts -2 mm)

* For dimensions of the profiles, please refer to the catalogue BLOCAN PROFILE TECHNOLOGY

Mounting bracket for Multilift II



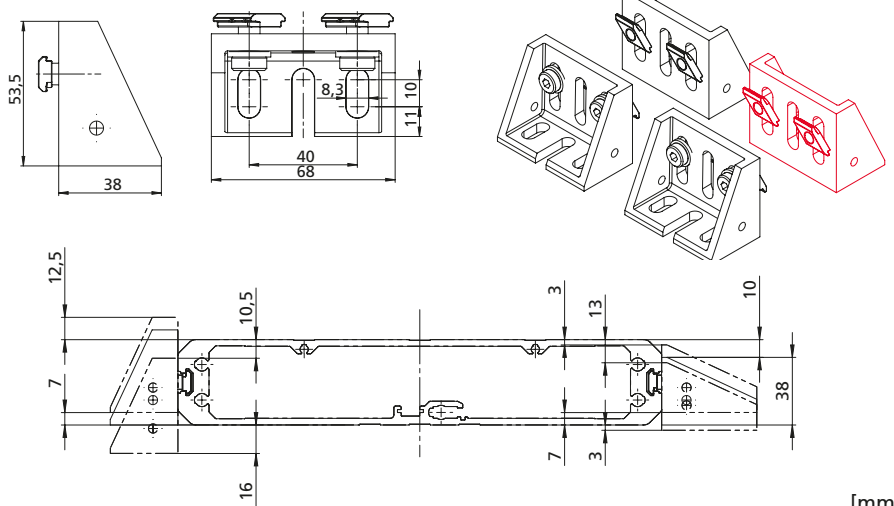
- The mounting brackets are used to fix the lifting column horizontally or vertically by means of the fixing slots on the outer profile of the Multilift II. Also suitable for ESD applications.

Material:

Aluminium die cast

Scope of delivery:

One mounting bracket including mounting material



[mm]

Code No.	Type	Max. load	Multilift II	
			Internal profile	External profile
QZD020745	Multilift II mounting bracket	3000 N		●

Support struts

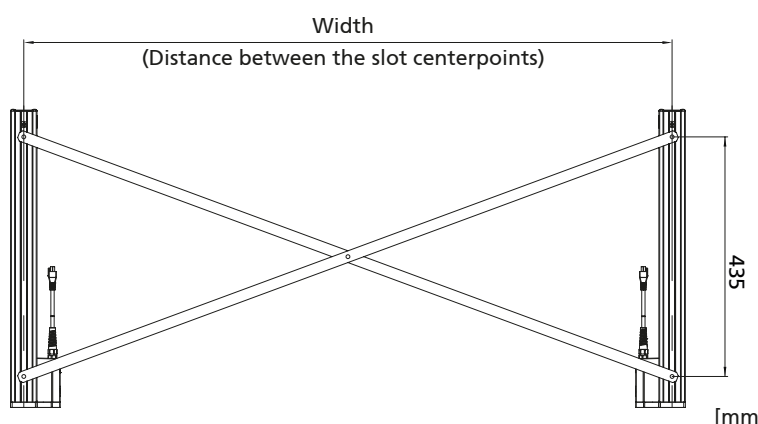
- For stabilisation of column structures.
- Available for all Multilift II / Multilift II telescope variants.

Material:

Aluminium not anodized

Scope of delivery:

Two support struts including fastenings



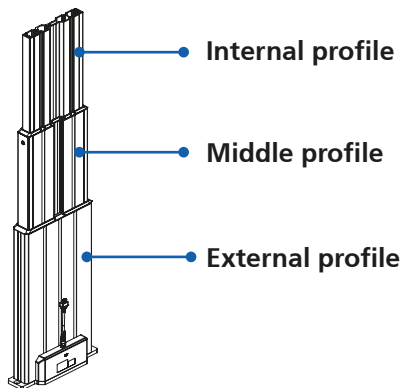
[mm]

Code No.	Type	Width (min.)	Width (max.)	Multilift II	
				Internal profile	External profile
QZD020734	Support struts Multilift II product line	750 mm	2000 mm		●

Distance between the slot centerpoints [mm]

Multilift II – Accessories

Foot versions



- Different foot versions for the Multilift
- No modifications of the Multilift required

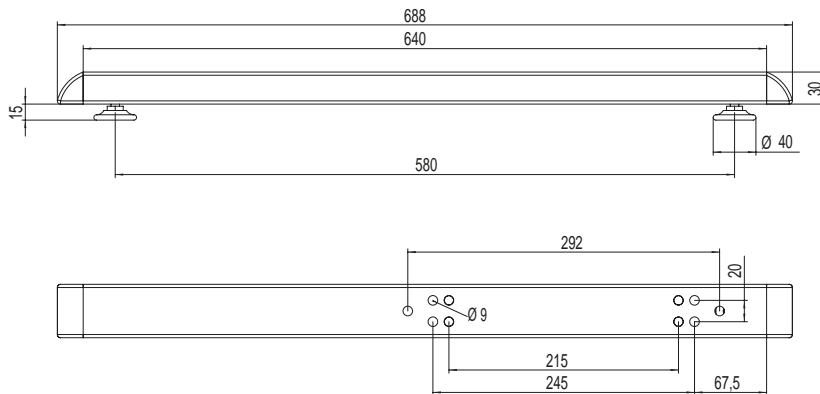
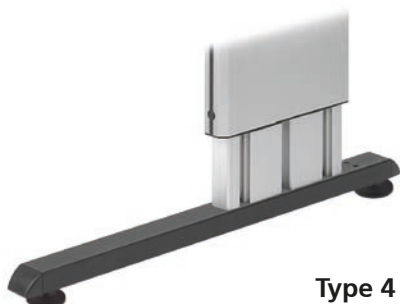
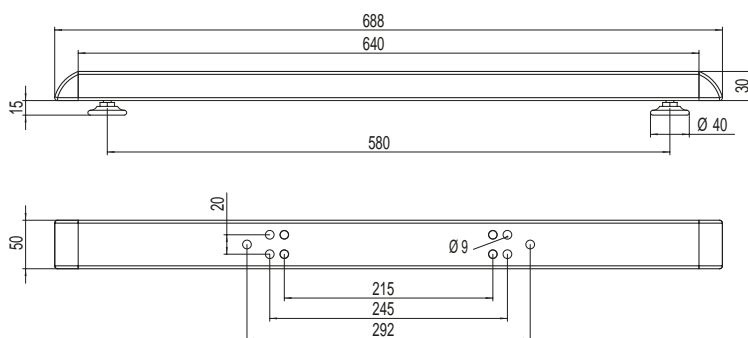
Material:

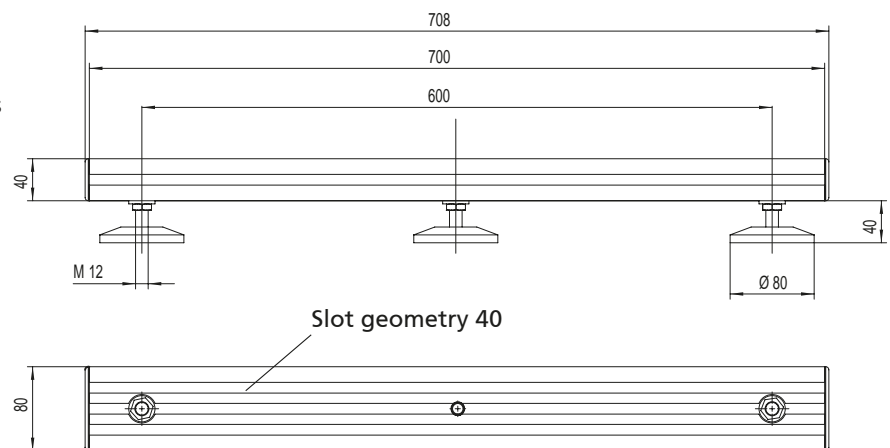
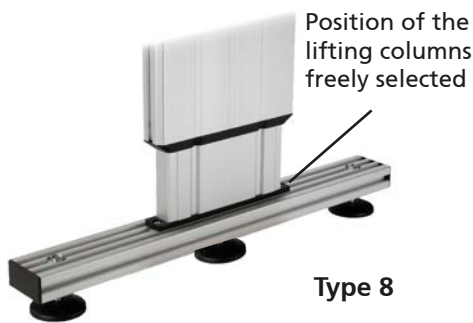
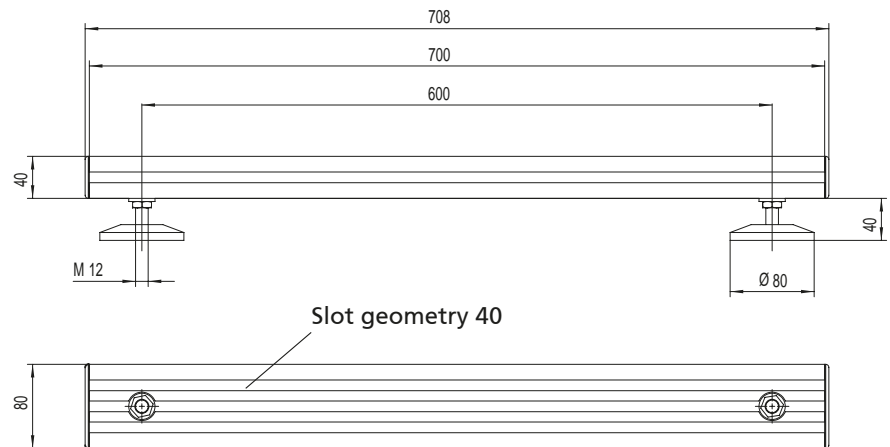
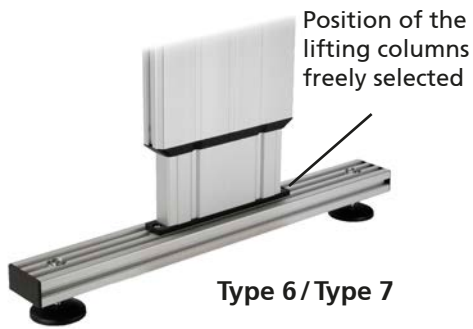
Type 1/2 GK-ALSi12/3.2583.02, black powder-coated

Type 3/4 steel tube, ends capped black powder-coated

Scope of delivery:

one foot with fixing set



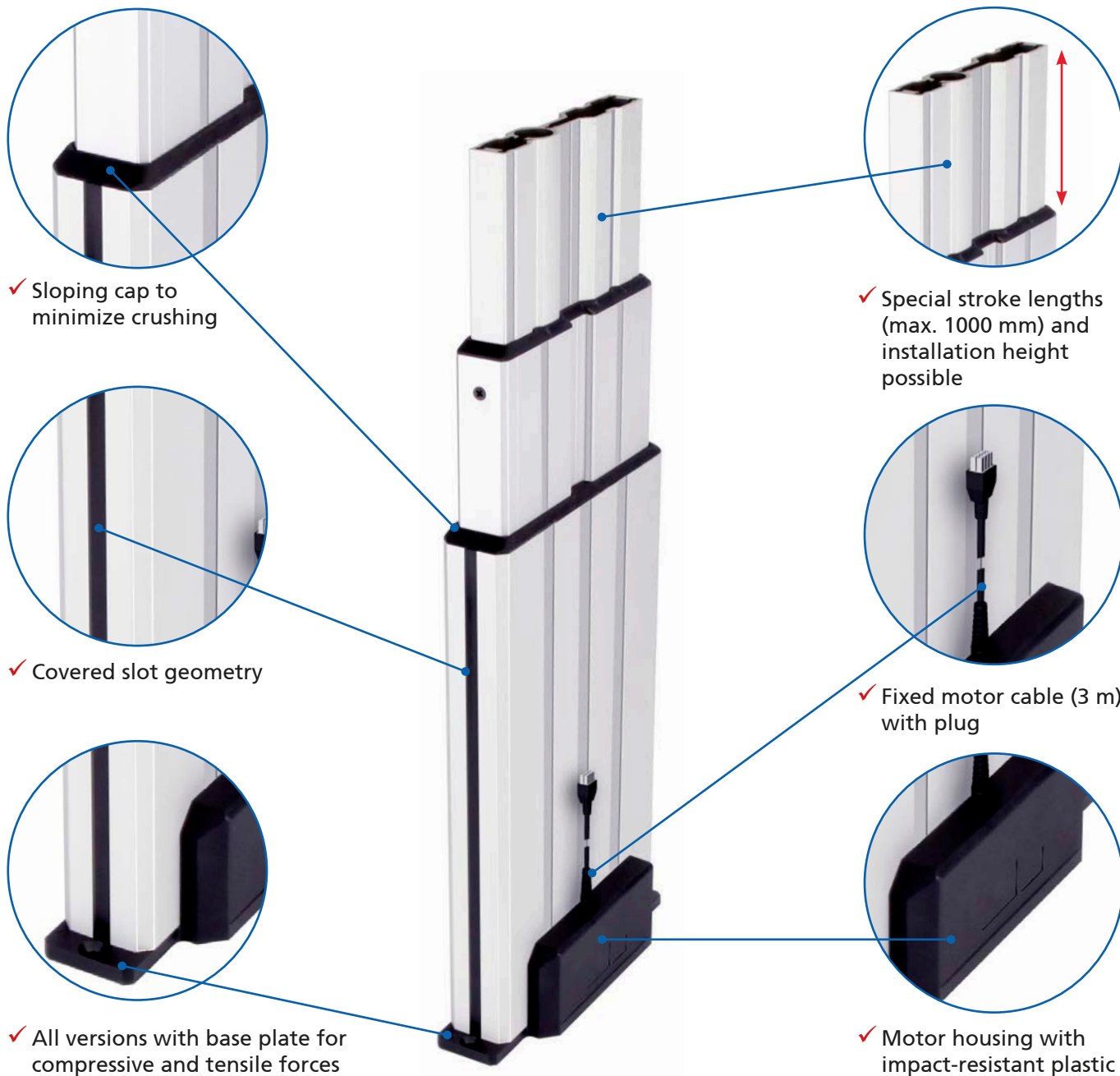


Multilift II with internal carriage	Type	Max. load	Multilift II with internal carriage		
			Internal profile	External profile	Properties
QZD020254	3	1000 N		●	
QZD020255	4	1000 N		●	
QZD020256	6	3000 N		●	
QZD020257	7	3000 N		●	For ESD-Version
QZD020258	8	3000 N		●	

Multilift II telescope



Optimised unique height/stroke length ratio conforms to the ergonomics standard for workbenches (DIN EN 527-1:2011)



Highlights / Features:

- Integrated limit switches
- Self-locking, even at max. load
- Lateral fixing slot in external profile
- Position feedback by hall sensor
- Optimised height/stroke length ratio conforms to the ergonomic standard for workbenches (DIN EN 527-1:2011)

Options:

- Special stroke lengths and installation height available on request
- With synchronous control:
 - Cascading of several columns
- Specific solutions on request
- Tested to: IEC 60601-1:2005, IEC 60601-1:2005/AMD1:2012

Multilift II telescope – Table of contents

Versions	Lifting columns	<ul style="list-style-type: none">■ Multilift II telescope..... Page 36■ Multilift II telescope ESD Page 40
Accessories	Fixing	<ul style="list-style-type: none">■ RK SyncFlex..... Page 42■ Assembly plates..... Page 45■ Support struts..... Page 45■ Foot versions Page 46

Multilift II telescope – Technical data

General information/operating conditions

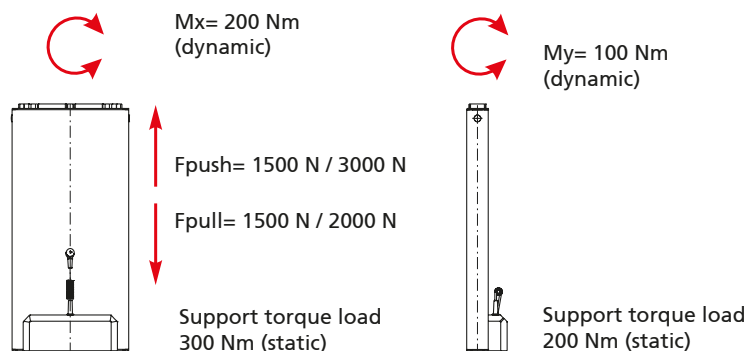
Type	Multilift II telescope	Multilift II telescope ESD	Custom
Design	Slim lifting column		
Guide	POM slide bearings		
Installation position	Any position / hanging only with drop protection provided by the customer		
Push force	3000 N or 1000 N		
Pull force	2000 N or 1000 N		
Self-locking	Yes		
Max. travel speed	8 mm/s or 16 mm/s		
Max. Stroke	650 mm		1000 mm
Installation dimension	560 mm		732,5 mm
Voltage	28 V DC		
Current output	4 A		
Protection class	IP 30		
Ambient temperature	+5°C to +40°C		
Displacement during synchronous operation	0 to 2 mm		
Duty cycle (Operation mode S3)	At nominal load, 10% (2 min operating time, 18 mins rest time)		

Note:

All information refers to the standard sizes. All data of push/pull forces are referring to the individual lifting column, for combined applications a safety factor of up to 0,6 has to be considered.

In medical applications, the maximum pull force of 500 N and, in the case of the version with a travel speed of 8 mm/s, the maximum push force of 1500 N must not be exceeded.

Load data Multilift II telescope



Drive	Push force [N]	Travel speed [mm/s]	Number of assigned motor channels			
			1	2	3	4
Multilift II telescope	1000	16	✓	✓	each 850 N	each 500 N
Multilift II telescope	3000	8	✓	✓	each 1800 N	each 1000 N
			MultiControl II duo		MultiControl II quadro	

Note:

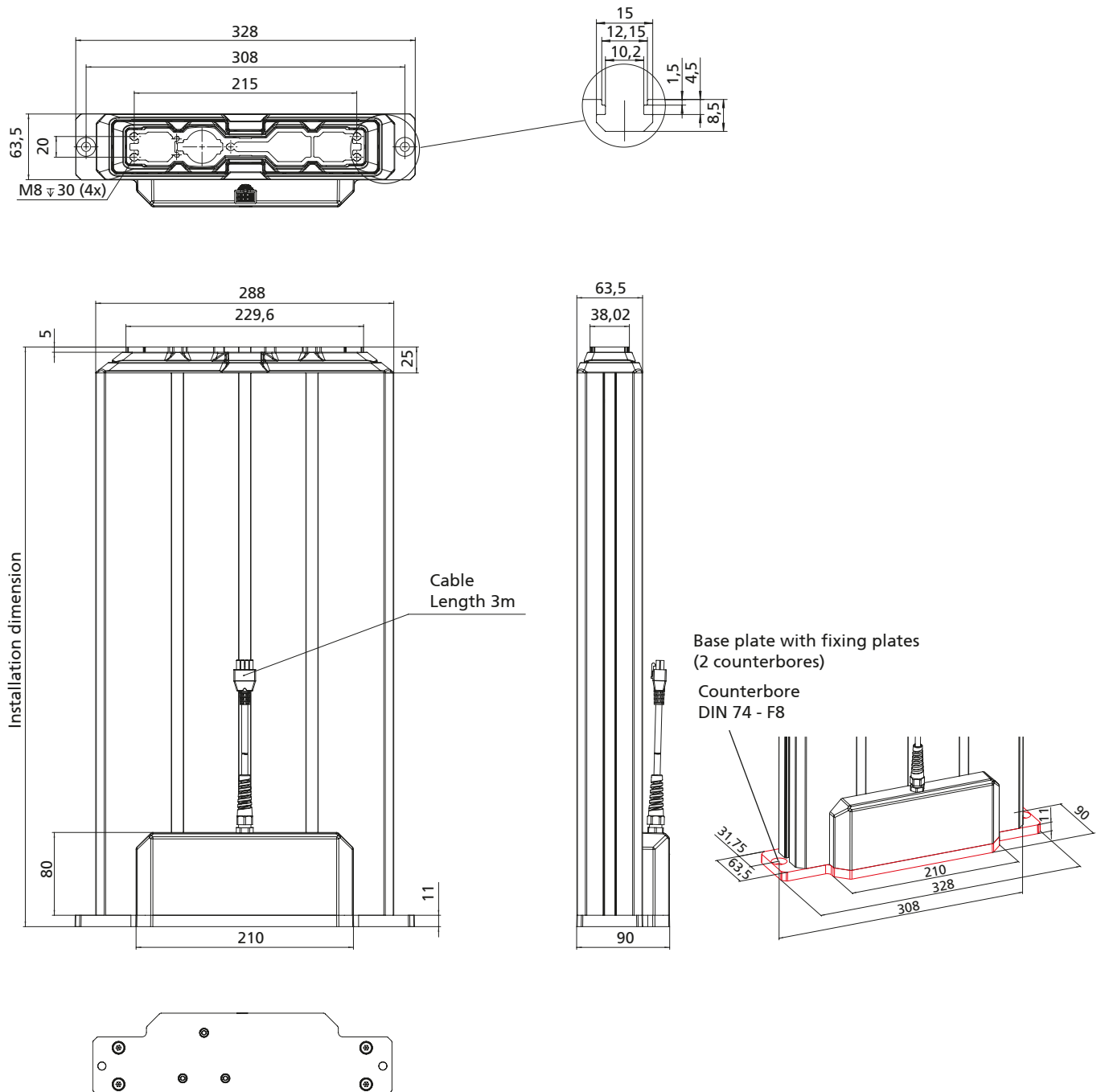
If more than 2 drives are to be operated synchronously at nominal load, BUS communication between two or more MultiControl II duo controllers is required.

The necessary accessories can be found on page 66.

The procedure for setting up BUS communication is described in detail in the operating manual.



Multilift II telescope

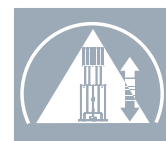


The fixing slots on the side allow an easy attachment of accessories. For example, a screen, CPU bracket or system reinforcements can be fixed to the lifting columns by using slot stones. The 30 slot geometry is also compatible with the RK BLOCAN® aluminium profile system.

Multilift II telescope – Versions

Multilift II telescope – unique installation height / stroke ratio

The three-stage lifting column conforms to the ergonomics standard for workbenches (DIN EN 527-1:2011) and features an optimum height / stroke length ratio: the installation dimension in a retracted position is just 560 mm. The maximum stroke is 650 mm (Custom 1000 mm) with a maximum lifting force of up to 3000 N per drive.



Special feature:

- Optimised height / stroke length ratio conforms to the ergonomic standard for workbenches (DIN EN 527-1:2011)

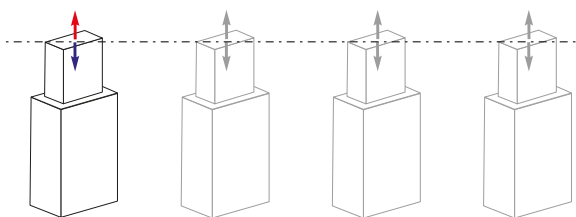
Ideal area of application:

- ✓ Especially for seated and standing workplaces in the production
- ✓ LEAN-Workplaces



Lifting column and control as individual components:

Multilift II telescope can be used exclusively in combination with MultiControl II duo (see page 50) and MultiControl II quadro (see page 58).

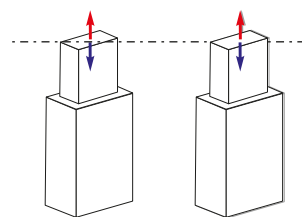


Features:

- Supports configuration of systems with up to 32 drives
- Wide-range input
- High duty cycle
- Simple connection to master control system
- Intuitive operation

Lifting column and control as pre-assembled set:

Multilift II telescope can be used exclusively in combination with Compact-e-3-EU (see page 78)



Features:

- Exclusively for a 2-column table system
- System is factory-initialised (Plug & Play)

Individual components:

Lifting column Multilift II telescope



Code No.	Type	max. push force [N]	max. pull force [N]	max. lifting speed [mm/s]	Total travel [mm]	Installation dimension [mm]	Weight [kg]
TM13B1C3C22CA0650	Multilift II telescope	3000 / 1500 (med.)	2000 / 500 (med.)	8	650	560	15.0
TM13B1C2C22CA0650	Multilift II telescope	1000 / 1000 (med.)	1000 / 500 (med.)	16	650	560	15.0

System components

Code No.	Accessories	
Controls		
QST44H12AA000	MultiControl II duo - Basic	Multilift II telescope
QST44H12AA022	MultiControl II duo - Premium	
QST44H13AA000	MultiControl II quadro - Basic	Multilift II telescope
QST44H13AA022	MultiControl II quadro - Premium	
Hand switches		
QZB11G07AV041	Hand switch with 6 function keys and display – 1 m cable lenth	
QZB11G07AB041	Hand switch with 2 function keys – 1 m cable lenth	
QZD000074	Hand switch drawer for hand switch with 6 and 2 function keys	
IEC connector		
QZD070618	IEC cable (Europe version, earthed plug)	

Note:

Further accessories (hand switches, connecting cables etc.) can be found in the chapter „Controls and accessories“ starting on page 52

Set:

Multilift II telescope in combination with Compact-e-3-EU control

Scope of delivery:

2 Multilifts II, 1 Controller box
Compact-e-3-EU, 4 Cover profiles,
4 Slot stones

Order instruction:

Please select mains cable and hand switch separately (see page 79)

Code No.	Type	max. push force [N]	max. pull force [N]	max. lifting speed [N]	Total travel [mm]	Installation dimension [mm]	Weight [kg]
TS13B1C3C22CA0650	Multilift II telescope Set 230V AC	3000	2000	8	650	560	31.0
TS13B1C2C22CA0650	Multilift II telescope Set 230V AC	1000	1000	16	650	560	31.0

Note:

The load value information is referring to the individual lifting column.
For combined applications a safety factor of up to 0,6 has to be considered.

Multilift II telescope ESD

Multilift II telescope ESD – discharging voltages via the lifting column

In the electronics and semiconductor manufacturing industry, electrostatic discharges can impair the function of components being assembled, or even destroy them. With the Multilift II telescope ESD, RK Rose+Krieger has developed a patented electric height adjustment system that is able to dissipate voltages.



Special feature:

- Outer and inner profile electrically connected to each other

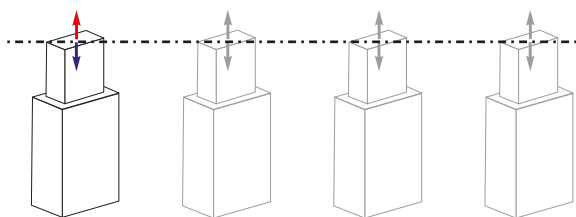
Ideal area of application:

- ✓ Assembly workstations for the manufacture of electronic components



Lifting column and control as individual components:

Multilift II telescope ESD can be used exclusively in combination with MultiControl II duo (see page 50) and MultiControl II quadro (see page 58).



Features:

- Supports configuration of systems with up to 32 drives
- Wide-range input
- High duty cycle
- Simple connection to master control system
- Intuitive operation

Individual components:

Lifting column Multilift II ESD



Code No.	Type	max. push force [N]	max. pull force [N]	max. lifting speed [mm/s]	Total travel [mm]	Installation dimension [mm]	Weight [kg]
TM13B1C3C22CC0650	Multilift II telescope ESD	3000 / 1500 (med.)	2,000 / 500 (med.)	8	650	560	15.0
TM13B1C2C22CC0650	Multilift II telescope ESD	1000 / 1000 (med.)	1,000 / 500 (med.)	16	650	560	15.0

System components

Code No.	Accessories	
Controls		
QST12H12AA000	MultiControl II duo - Basic	Multilift II telescope ESD
QST12H12AA022	MultiControl II duo - Premium	
QST12H14AA000	MultiControl II quadro - Basic	Multilift II telescope ESD
QST12H14AA022	MultiControl II quadro - Premium	
Hand switches		
QZB11G07AV041	Hand switch with 6 function keys and display – 1 m cable lenth	
QZB11G07AB041	Hand switch with 2 function keys – 1 m cable lenth	
QZD000074	Hand switch drawer for hand switch with 6 and 2 function keys	
IEC connector		
QZD070618	IEC cable (Europe version, earthed plug)	

Note:

Further accessories (hand switches, connecting cables etc.) can be found in the chapter „Controls and accessories“ starting on page 66.

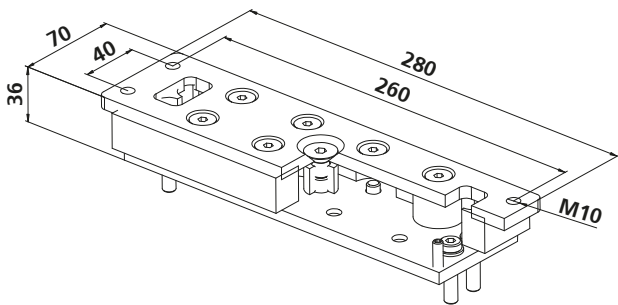
Multilift II telescope – Accessories

RK SyncFlex H

Scope of delivery:
Adjuster plate, incl. fixing material

Horizontal alignment

- To prevent locked-up stress in mechanically overdefined bearing systems (more than one fixed bearing) around the horizontal axis.
With RK SyncFlex H, defined floating bearings supplement the application.
- The horizontal compensation in the Z-axis enables the mobility required when moving the lifting columns.



Code No.	Type	Max. load	Multilift II telescope	
			Internal profile	External profile
QZD020471	Multilift II product line	3000 N	●	

RK SyncFlex V

Scope of delivery:

Adjuster plate, incl. fixing material

Option:

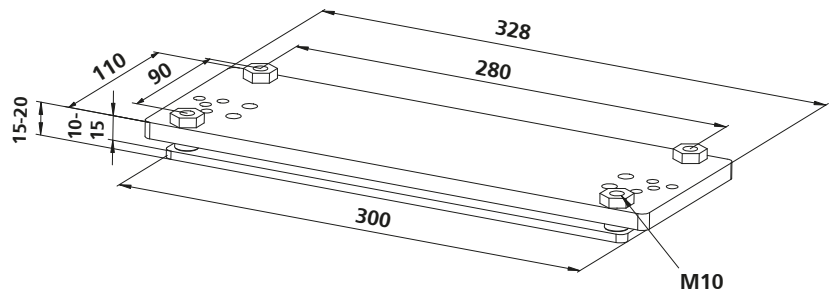
Pressure plate (see table) can be ordered separately

Vertical alignment

- If the lifting columns are not parallel, the distance between the two upper fixing points will change during the movement. However, a rigid connection keeps this distance constant, which means that the lifting columns are subject to very strong forces.

RK SyncFlex V enables the compensation of unevenness in the mounting environment.

- The lifting columns can be aligned via the vertical adjustment around the X-Y axes.



					[mm]
Code No.	Type	Max. load	Multilift II telescope		
			Internal profile	External profile	
RK SyncFlex Adjusting plate					
QZD020620	Multilift II Produktlinie	3000 N	● *	●	
Abdrückplatte					
QZD020621	Multilift II Produktlinie	3000 N			

•* = in connection with the assembly plate Type 2 (page 45)

Multilift II telescope – Accessories

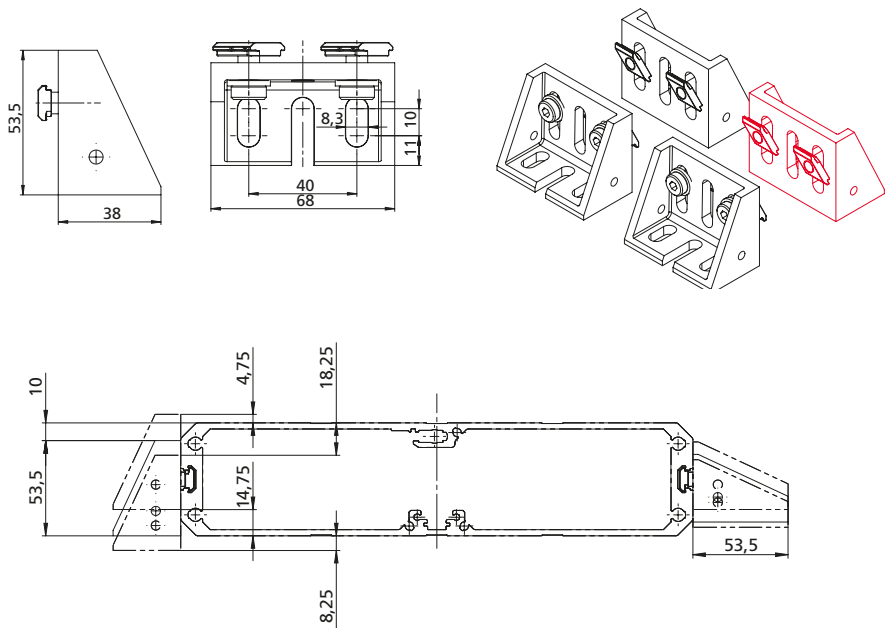
Mounting bracket for Multilift II



■ The mounting brackets are used to to fix the lifting column horizontally or vertically by means of the fixing slots on the outer profile of the Multilift II. Also suitable for ESD applications.

Material:
Aluminium die cast

Scope of delivery:
One mounting bracket including mounting material



[mm]

Code No.	Type	Max. load	Multilift II	
			Internal profile	External profile
QZD020745	Multilift II mounting bracket	3000 N		●

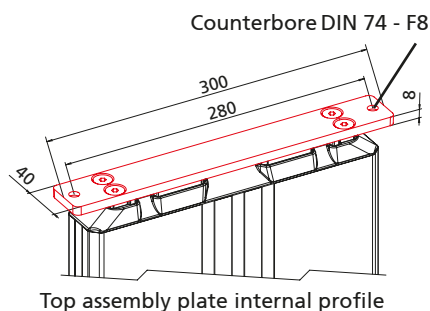
Assembly plates

- The assembly plates are for easy assembling in customer applications.

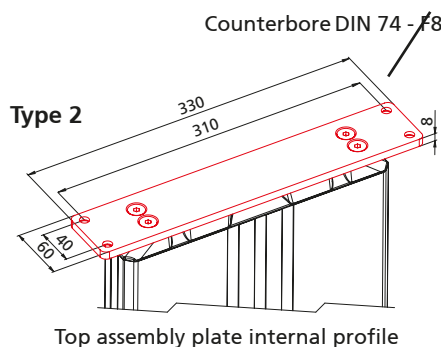
Material:

Option of black-powdered die cast zinc or black-powdered steel, zinc plated fixing set

Type 2



Type 3



Scope of delivery:

Plate with fixing set

Code No.	Type	for drive	Material	Multilift II telescope	
				Internal profile	External profile
QZD020549	2	Multilift II telescope	Zinc die cast	●	
QZD020552	3	Multilift II telescope	Steel	●	

Support struts

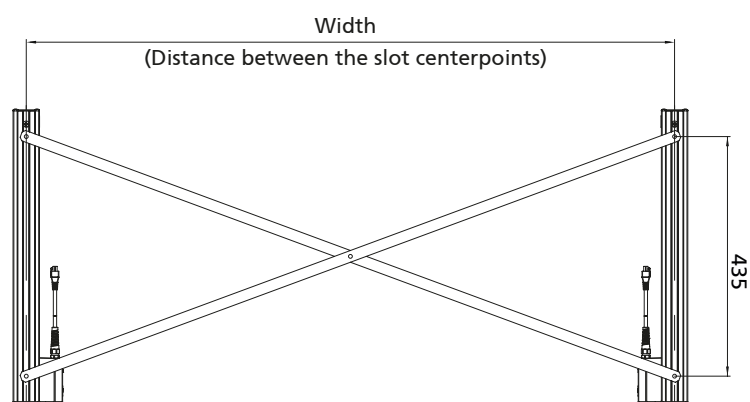
- For stabilisation of column structures.
- Available for all Multilift II / Multilift II telescope variants.

Material:

Aluminium not anodized

Scope of delivery:

Two support struts including fastenings



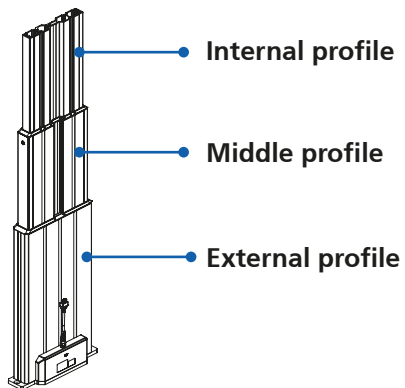
[mm]

Code No.	Type	Width (min.)	Width (max.)	Multilift II	
				Internal profile	External profile
QZD020734	Support struts Multilift II product line	750 mm	2000 mm		●

Distance between the slot centerpoints [mm]

Multilift II telescope – Accessories

Foot versions



- Different foot versions for the Multilift
- No modifications of the Multilift required

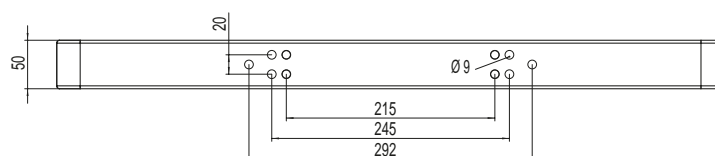
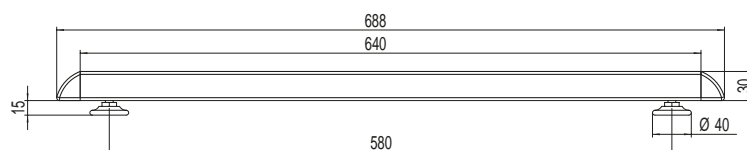
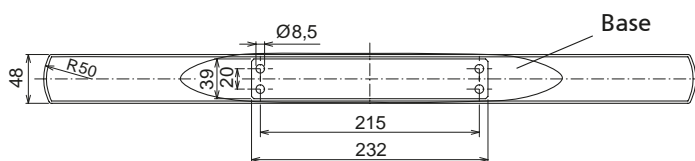
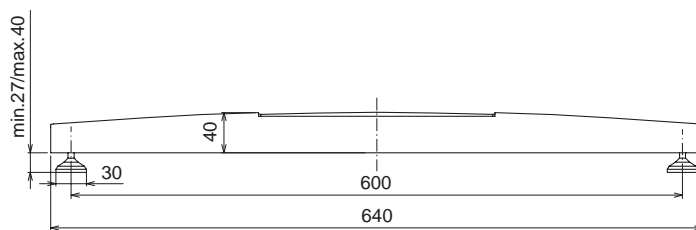
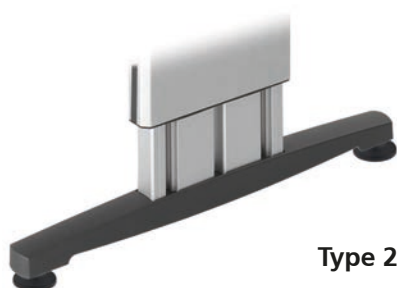
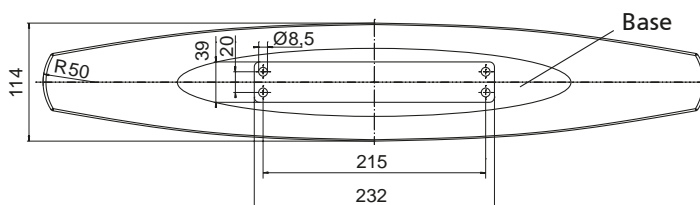
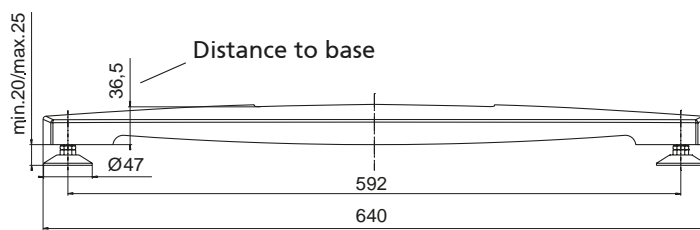
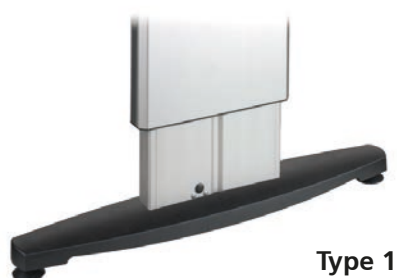
Material:

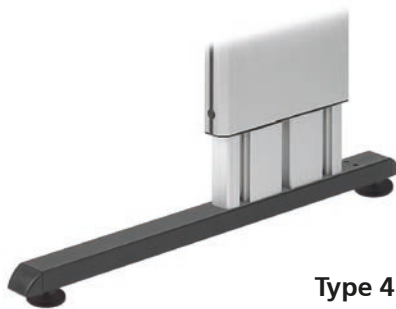
Type 1/2 GK-ALSi12/3.2583.02, black powder-coated

Type 3/4 steel tube, ends capped black powder-coated

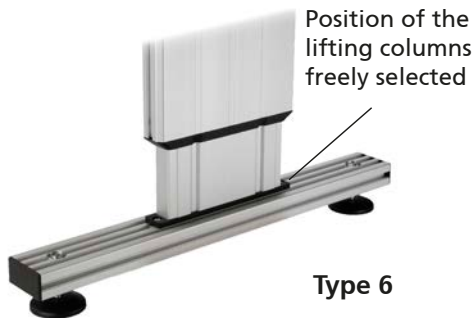
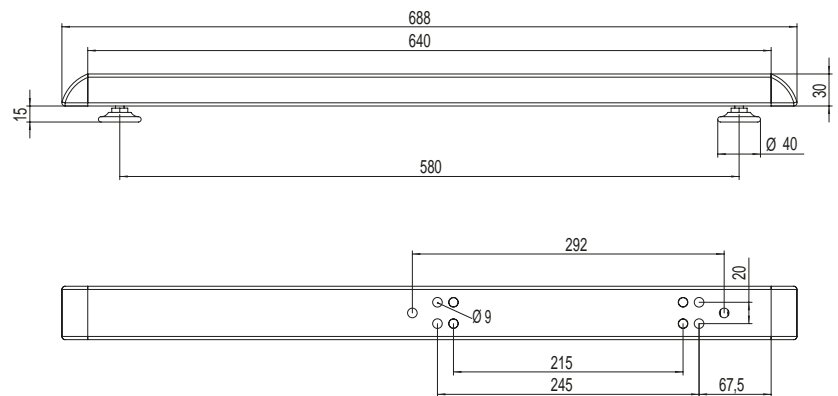
Scope of delivery:

one foot with fixing set

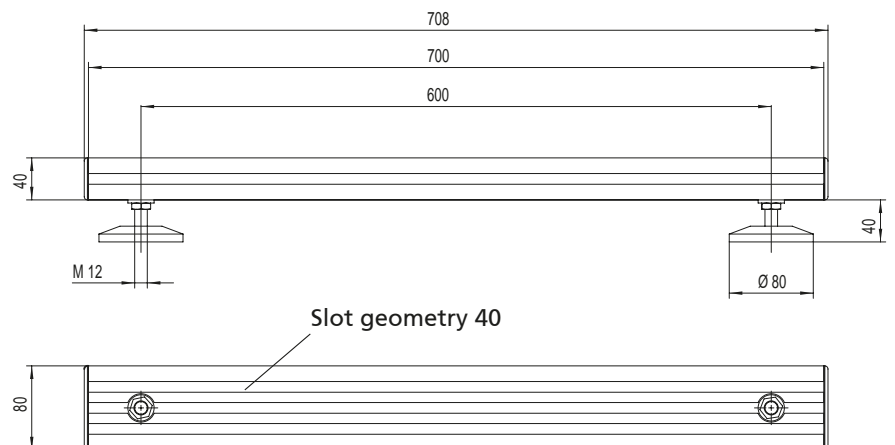




Type 4



Type 6



*Order instruction: The application example shown – internal profile mounted on Type 6 – is only in combination with an assembly plate possible (see page 45)

Code No.	Type	Max. load	Multilift II telescope		Multilift II telescope ESD	
			Internal profile	External profile	Internal profile	External profile
QZD020252	1	1000 N	●			
QZD020253	2	1000 N	●			
QZD020254	3	1000 N	●			
QZD020255	4	1000 N	●			
QZD020256	6	3000 N	●*	●		
QZD020257	7	3000 N			●*	●

MultiControl II duo



Synchronous control for up to **2 drives**
(16 in bus combination)

MultiControl II quadro



Synchronous control for up to **4 drives**
(32 in bus combination)

The MultiControl II duo and MultiControl II quadro each have a 10 A power output. If the drives require more than 10 amps for the particular application, multiple MultiControl II duo controls have to be used in a bus combination. The necessary accessories can be found on page „MultiControl II – Accessories“ on page 66. The procedure for setting up BUS communication is described in detail in the operating manual.



Drive		Push force [N]	Travel speed [mm/s]	Number of assigned motor channels			
				1	2	3	4
Lifting columns	Multilift	1000	13	✓	✓	✓	each 750 N
	Multilift	3000	6	✓	✓	each 2200 N	each 1500 N
	Multilift interior carriage	1000	13	✓	✓	✓	each 750 N
	Multilift interior carriage	3000	6	✓	✓	each 2200 N	each 1500 N
	Multilift II	1000	16	✓	✓	✓	each 750 N
	Multilift II	3000	8	✓	✓	each 2200 N	each 1500 N
	Multilift II safety	600	16	✓	–	–	–
	Multilift II telescope	1000	16	✓	✓	each 850 N	each 500 N
	Multilift II telescope	3000	8	✓	✓	each 1800 N	each 1000 N
				MultiControl II duo		MultiControl II quadro	

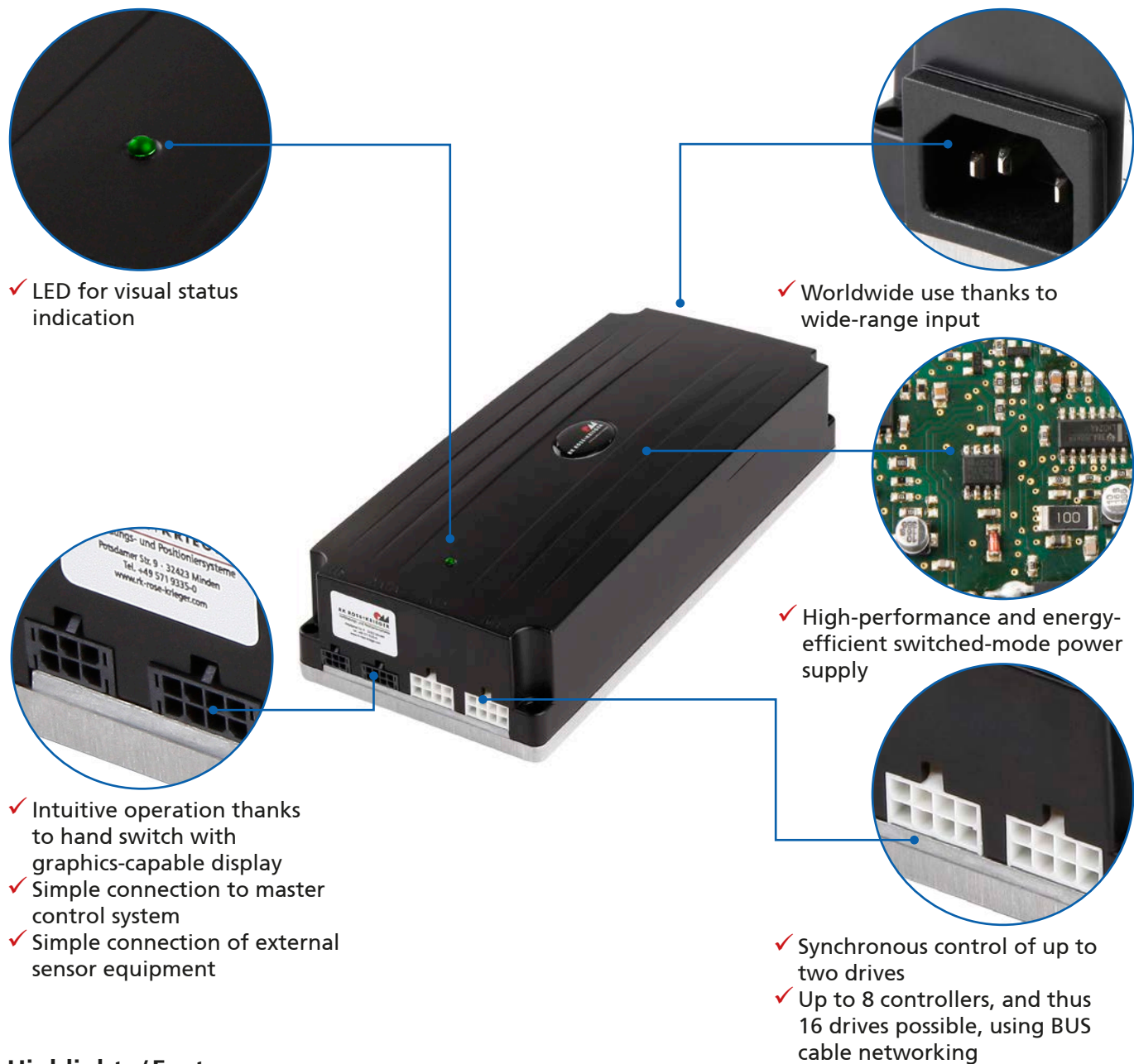
Note:

If more than 2 drives are to be operated synchronously at nominal load, BUS communication between two or more MultiControl II duo controllers is required.

The required accessories can be found on page 62. The procedure for setting up BUS communication is described in detail in the operating manual.



MultiControl II duo



Highlights / Features:

- Dynamic duty cycle calculation
- Duty cycle, overcurrent and temperature monitoring for overload protection as standard
- Intuitive operation thanks to hand switch with graphics-capable display
- The hand switch with 6 function keys can be used to perform multiple functions, such as the storage of intermediate positions or user changeovers
- Simple connection to the master control system level using serial interface (RS-485) and standardised bus protocol (Modbus RTU)
- Energy-efficient overall system (control incl. hand switch) thanks to switched-mode power supply with wide-range input (standby consumption < 1 watts)
- Controller available in Basic and Premium versions
- Certified control according to NRTL (UL 61010-1; CAN/CSA C22.2 No. 61010-1) and FCC Part 15

Option:

- Special functions available on request
- CB report as per 61010-1
- Versions as per DNV GL (e.g. CG 0339)
- High-performance version on request



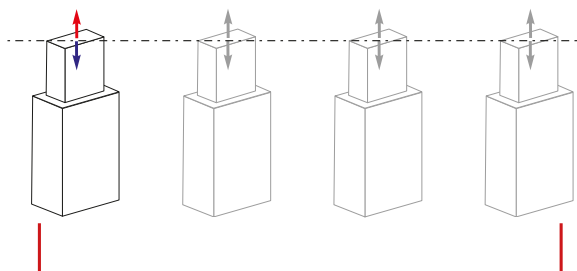
MultiControl II duo – Table of contents

Controls	MultiControl II duo	<ul style="list-style-type: none">■ General information Page 52■ MultiControl II duo Basic Page 54■ MultiControl II duo Premium Page 54
Accessories		<ul style="list-style-type: none">■ IEC cable Page 66■ Cabel Page 66■ Hand switch Page 68■ Hand switch drawer Page 68■ I/O - Interface..... Page 72

MultiControl II duo – Technical data

General information / operating conditions

Type	MultiControl II duo
Compatible	Multilift, Slimlift, Multilift II, Multilift II telescope, Powerlift M, LZ 60
Input voltage	100 – 240 V ~ 50 / 60 Hz
Output voltage	28 V DC
Current output	max. 10 A
Power	285 VA
Standby-power	≤ 0,5 W
Ambient temperature	+5 °C to +40 °C
Relative humidity (for operation)	30 % to 75 %
Protection class (with earth terminal)	I
Protection class	IP 20
Dimensions (L, B, H) [mm]	240 x 105 x 56
Weight	880 g
Duty cycle (Operation mode S 3)	At nominal load, 20% (4 min operating time, 16 mins rest time)

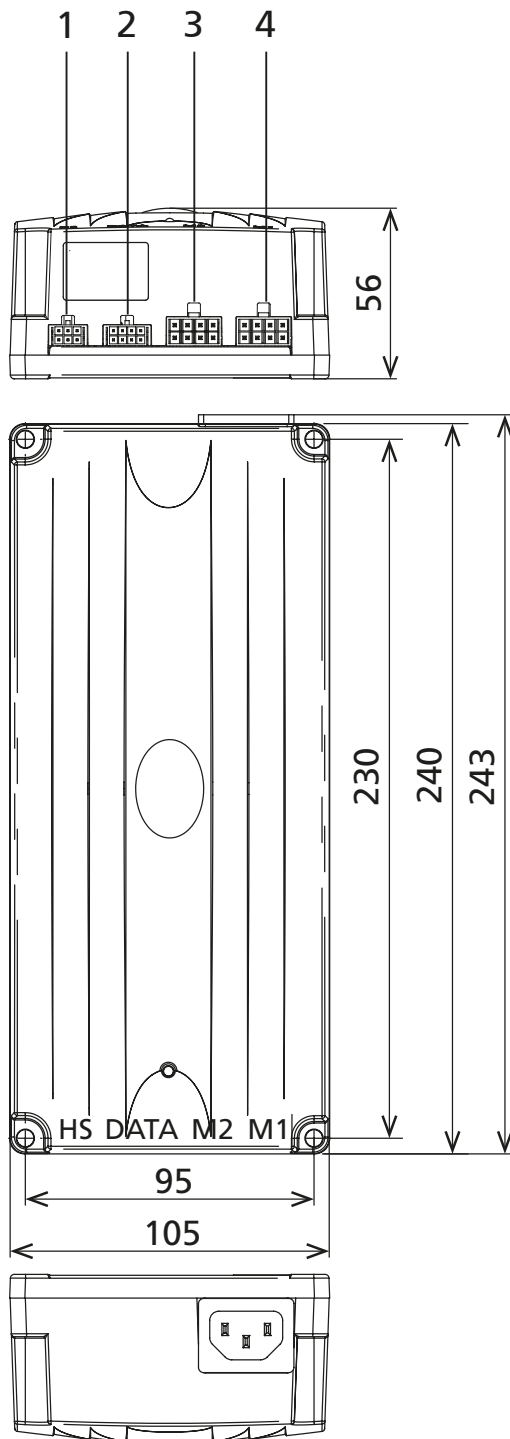


Supports configuration of systems with up to 16 drives

MultiControl II duo



- 1 HS = Hand switch connector
- 2 DATA = Interface for sensors
(e.g. safety edge and synchronisation bus)
- 3 M2 = Motor connector 2
- 4 M1 = Motor connector 1
(must always be assigned)
- P = Power socket



MultiControl II duo – Versions

MultiControl II duo basic/premium

The MultiControl II duo controller is available in a Basic and a Premium version.

The Premium version includes three additional software functions compared to the Basic version. These are described on the following pages.

Feature/software function	Basic	Premium
Low standby consumption	•	•
Wide-range input	•	•
Dynamic duty cycle calculation	•	•
Temperature monitoring	•	•
Visual status indication	•	•
Networking of multiple controllers*	•	•
Stroke limitation*	•	•
Memory positions*	•	•
Change/set stroke display/base height*	•	•
View error history	•	•
View current consumption of drives	•	•
Transfer parameter settings to other systems*	•	•
Serial interface (RS-485)	•	•
Standardised bus protocol (Modbus RTU)	•	•
I/O interface compatibility	•	•
Connection of external sensor equipment (e.g. safety edge)	•	•
Integrated collision detection (SPP)		•
Absolute positioning*		•
Relative positioning*		•

***Note:** Hand switch with 6 function keys required for functionality

Controls

Code No.	Softwareversion	for drive
QST11H12AA000	Basic	Multilift II, Multilift II ESD, Multilift II safety, Multilift II clean, Multilift II with internal carriage
QST11H12AA022	Premium	
QST12H12AA000	Basic	Multilift II telescope, Multilift II telescope ESD
QST12H12AA022	Premium	
QST13H12AA000	Basic	Multilift II impact
QST13H12AA022	Premium	
QST10H12AA000	Basic	Multilift

SPP – Smart Product Protection (integrated collision detection)

Function description

The Premium version of the MultiControl II control unit includes RK Rose+Krieger GmbH's own in-house developed SPP technology. This technology makes for a considerable reduction of the risk of product damage in the customer's application. In the process, protection is not just provided for the connected drives, but also for the connecting construction as a whole.

When adjusting the height of tables or machine frames, for instance, there is a latent risk of collisions as a result of the raising and lowering of a load. If they occur, these collisions can cause hitches and damage to drives (reduction of the service life, possible complete failure) and even to the connecting construction.

SPP is a software-based solution for collision detection. A major benefit is the fact that the technology is fully integrated into the control system. This way, it is not necessary to equip the customer application with additional external sensor equipment.

A further special feature is the option of the user to adjust the sensitivity of the system (triggering force when a collision is detected) specifically to the application. The following is a further summary of the significant benefits of integrated collision detection.



Highlights / Features:

- Higher product safety – SPP detects obstacles, both during upward and downward movement
- No external obstructing contour – the technology is fully integrated into the control system and works with all compatible drives
- High process reliability – SPP functions regardless of the load or other ambient parameters, e.g. ambient temperature
- Plug & Play – no further installation steps are required for the collision protection thanks to integration into the control system
- Flexibility – sensitivity can be adjusted using the hand switch with 6 function keys

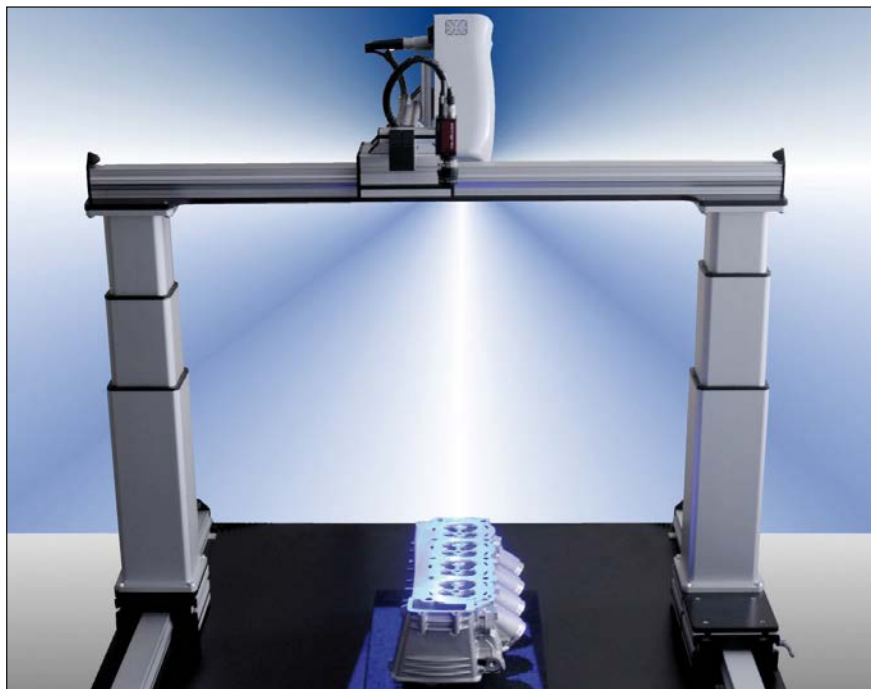
Relative and absolute positioning

Alongside the integrated collision detection (SPP), the Premium version has two further functions which relate to the type of drive positioning.

In addition to moving to previously stored memory positions, it is also possible to carry out relative or absolute positioning. The first variant refers to positioning relative to the current position of the lifting column.

This way, the operating control can be used to set a defined value (e.g. 30% or 30 mm) by which the drive further retracts or extends.

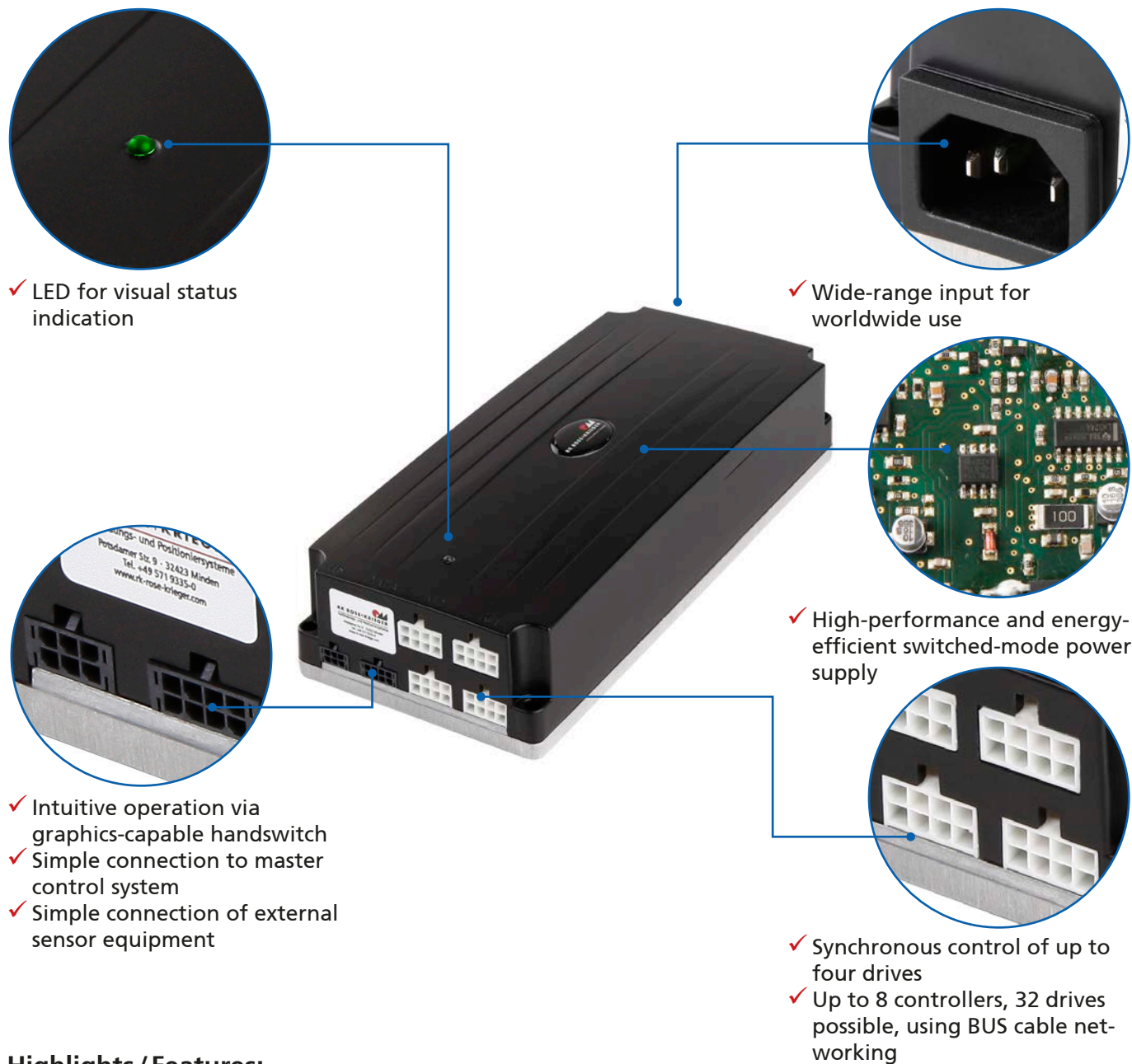
Absolute positioning, on the other hand, refers to the complete scale of the adjustment range. Thus it is also possible to use the operating control to move the drive precisely to a predefined position. This function can be very significant, for instance, for applications in which components are measured.



Highlights / Features:

- Absolute positioning – precise positioning to a defined position in relation to the complete adjustment range of the drive
- Relative positioning – gradual positioning in relation to the current position of the drive
- Positioning accuracy – both software functions allow positioning to predefined positions which is accurate to the millimetre

MultiControl II quadro



Highlights / Features:

- Dynamic duty cycle calculation
- Duty cycle, overcurrent and temperature monitoring for overload protection as standard
- Intuitive operation thanks to hand switch with graphics-capable display
- The hand switch with 6 function keys can be used to perform multiple functions, such as the storage of intermediate positions or user changeovers
- Simple connection to the master control system level using serial interface (RS-485) and standardised bus protocol (Modbus RTU)
- Energy-efficient overall system (control incl. hand switch) thanks to switched-mode power supply with wide-range input (standby consumption < 1 watts)
- Controller available in Basic and Premium versions
- Certified control according to NRTL (UL 61010-1; CAN/CSA C22.2 No. 61010-1) and FCC Part 15

Option:

- Special functions available on request
- CB report as per 61010-1
- Versions as per DNV GL (e.g. CG 0339)
- High-performance version on request



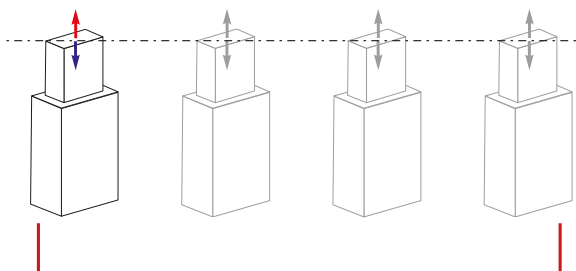
MultiControl II quadro – Table of contents

Controls	MultiControl II quadro	<ul style="list-style-type: none">■ General information Page 60■ MultiControl II quadro basic Page 62■ MultiControl II quadro premium Page 62
Accessories		<ul style="list-style-type: none">■ IEC cable Page 66■ Cabel Page 66■ Hand switch Page 68■ Hand switch drawer Page 68■ I/O - Interface..... Page 72

MultiControl II quadro – Technical data

General information / operating conditions

Type	MultiControl II quadro
Compatible	Multilift, Slimlift, Multilift II, Multilift II telescope, Powerlift M, LZ 60
Input voltage	100 – 240 V ~ 50 / 60 Hz
Output voltage	28 V DC
Current output	max. 10 A
Power	285 VA
Standby-power	≤ 1 W
Ambient temperature	+5 °C to +40 °C
Relative humidity (for operation)	30 % to 75 %
Protection class (with earth terminal)	I
Protection class	IP 20
Dimensions (L, B, H) [mm]	240 x 105 x 56
Weight	ca. 1000g
Duty cycle (Operation mode S 3)	At nominal load, 20% (4 min operating time, 16 mins rest time)

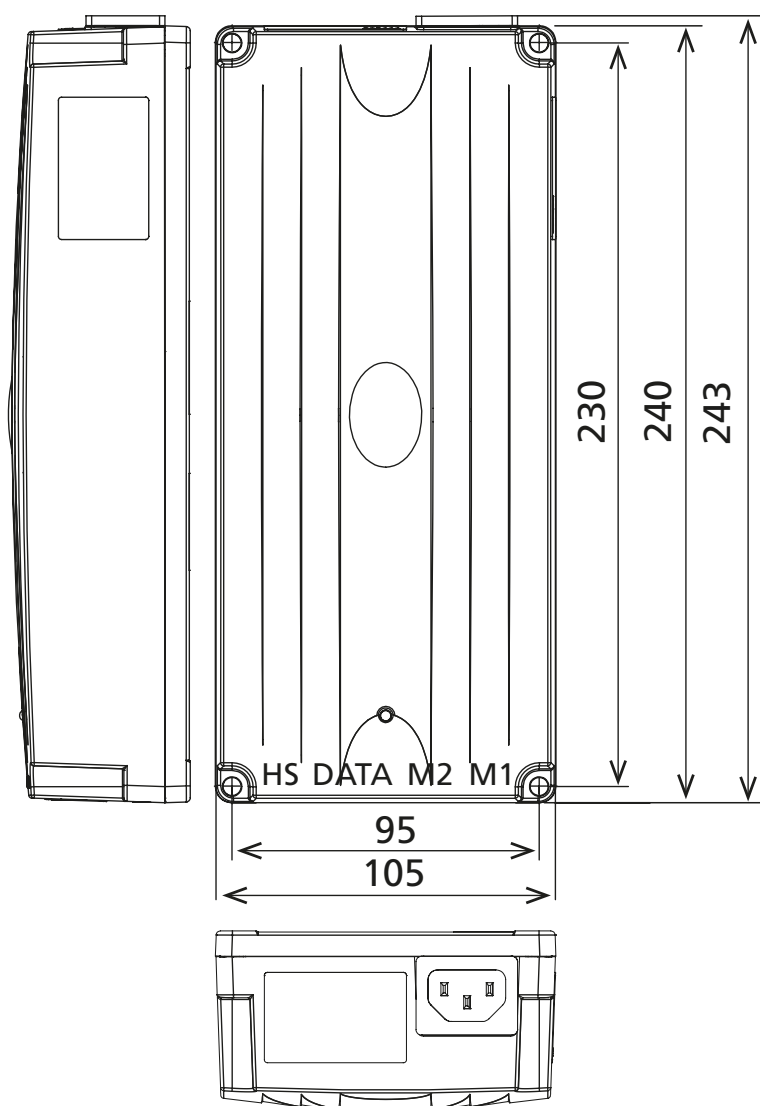
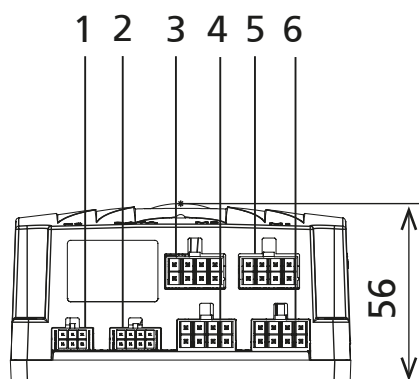


Supports configuration of systems with up to 32 drives

MultiControl II quadro



- 1 HS = Hand switch connector
- 2 DATA = Interface for sensors
(e.g. safety edge and
synchronisation bus)
- 3 M4 = Motor connector 4
- 4 M2 = Motor connector 2
- 5 M3 = Motor connector 3
- 6 M1 = Motor connector 1
- P = Power socket



MultiControl II quadro – Versions

MultiControl II quadro basic/premium

The MultiControl II duo controller is available in a Basic and a Premium version.

The Premium version includes three additional software functions compared to the Basic version. These are described on the following pages.

Feature/software function	Basic	Premium
Low standby consumption	•	•
Wide-range input	•	•
Dynamic duty cycle calculation	•	•
Temperature monitoring	•	•
Visual status indication	•	•
Networking of multiple controllers*	•	•
Stroke limitation*	•	•
Memory positions*	•	•
Change/set stroke display/base height*	•	•
View error history*	•	•
View current consumption of drives*	•	•
Transfer parameter settings to other systems*	•	•
Serial interface (RS-485)	•	•
Standardised bus protocol (Modbus RTU)	•	•
I/O interface compatibility	•	•
Connection of external sensor equipment (e.g. safety edge)	•	•
Integrated collision detection (SPP)		•
Absolute positioning*		•
Relative positioning*		•
Key Lock*		•
Drive group management*		•

*Note: Hand switch with 6 function keys required for functionality

Controls

Code No.	Softwareversion	for drive
QST11H14AA000	Basic	Multilift II, Multilift II ESD, Multilift II safety, Multilift II clean, Multilift II with internal carriage
QST11H14AA022	Premium	
QST12H14AA000	Basic	Multilift II telescope, Multilift II telescope ESD
QST12H14AA022	Premium	
QST13H14AA000	Basic	Multilift II impact
QST13H14AA022	Premium	
QST10H14AA000	Basic	Multilift

Drive group management (DGM)

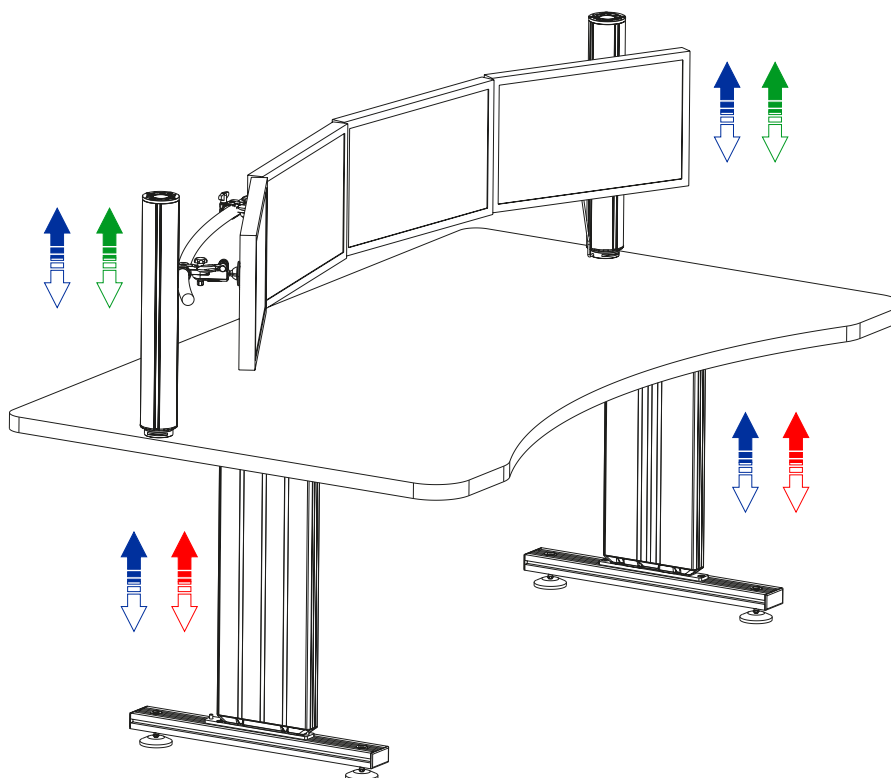
Function description

The basic version of the MultiControl II quadro allows you to position four drives synchronously. Those for whom this functionality is not sufficient can opt for the premium version of the control unit.

Alongside the renowned collision detection (SPP), it also has drive group management. The function, which was developed by RK Rose+Krieger in-house, allows different drive groups to be freely configured (2+2, 2+1, 1+2 and 1+1). In the process, up to two different drive types (e.g. RK Slimlift and Multilift II) can be combined with each other or positioned individually, in parallel or synchronously.

Furthermore, when drive group management is activated, the numerous further premium functions can be used. The second drive group, for example, can be positioned independently of the first either absolutely or relatively, and memory positions can also be assumed independently.

The integrated collision detection can also be freely configured for each group in the upwards and downwards movement. These benefits, combined with the intuitive menu navigation of the MultiControl II family, facilitate a number of new applications. The following is a summary of the essential benefits of drive group management.



Highlights/features:

- Freely configurable motor groups (2+2, 2+1, 1+2, 1+1)
- Plug & play – thanks to integration in the control. No need for a bus connection with four drives
- The full range of premium functions are also available for activation
- Flexibility – Free selection of combinable drives underneath the motor groups



MultiControl II – Accessories

IEC cable



F
(Europe)



J
(Switzerland)



G
(Great Britain)



B
(Japan, USA)

Code No	Version	Typ	Cable length
QZD070618	IEC cable (Europe version, earthed plug)	F	1.80 m
QZD020159	IEC cable (Switzerland version, earthed plug)	J	1.80 m
QZD070619	IEC cable (Great Britain version, earthed plug)	G	1.80 m
QZD070631	IEC cable (Japan, version earthed plug)	B	1.80 m
QZD070622	IEC cable (USA, version earthed plug)	B	2.00 m



1



2



3



4

Code No.	Accessories	Interface	Fig.
QZD070731	BUS cable 6 m for networking of up to 8 synchronous control	DATA	1
QZD070694	Terminating resistor (only necessary when more than 2 synchronous controls are connected) *	BUS-cabel 6 m	2
QZD070730	BUS cable 1 m for networking of 2 synchronous control	DATA	3
QZD070718	Interface cable (open cable end) – 4 m straight	DATA	4

***Note:** If there are more than two connected controllers, the overall system always requires two terminating resistors at the beginning and end of the BUS system.

Connecting cable for Multilift I to MultiControl II family



Code No.	Multilift I to MultiControl II*	Interface	Fig.
QZD020711	Connecting cable with locking mechanism, Multilift I to MultiControl II - 2.5 m	Motor connector	5
QZD020722	Adapterkabel Multilift I an MultiControl II - 0,2 m	Motor connector	6

***Note:** For the compatibility of the Multilift I lifting column, you require one of the adapter cables shown.



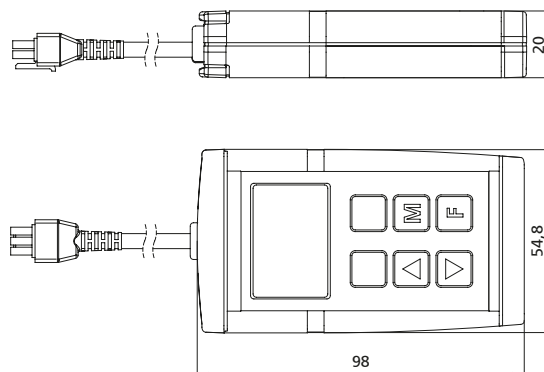
Code No.	Accessories	Interface	Fig.
QZD070700	Hand switch extension cable – 2.5 m straight	HS	7
QZD070710	Hand switch cable (open cable end) – 4 m straight	HS	8
QZD070712	Extension cable for drives to MultiControl II - 3 m straight	Motor connector	9

***Note:** When using the 3 m extension cable for drives (QZD070712), lag error E11 / E12 may occur due to the increased line resistance. In this case it is necessary to reduce the travel speed, for which you require the hand switch with 6 function keys and display.

MultiControl II – Accessories

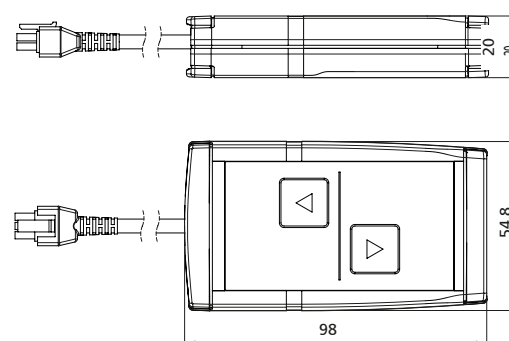
Hand switches with 6 function keys

1



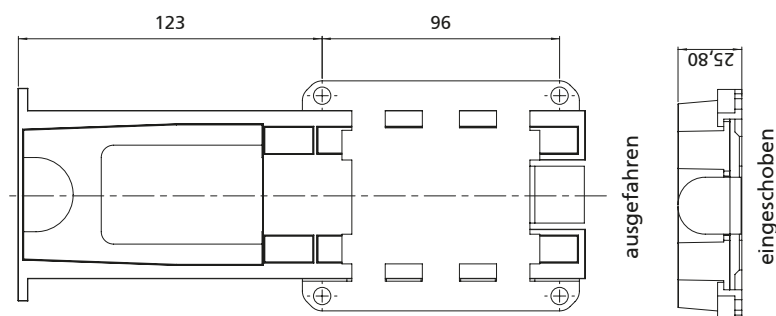
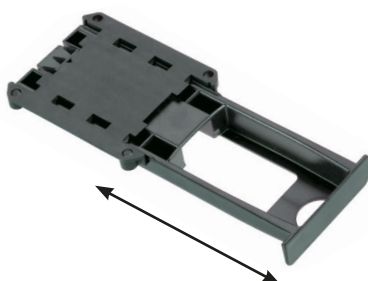
Hand switches with 2 function keys

2



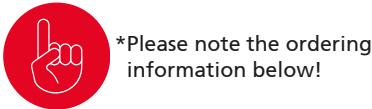
Hand switch drawer

3

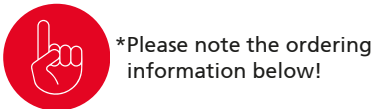
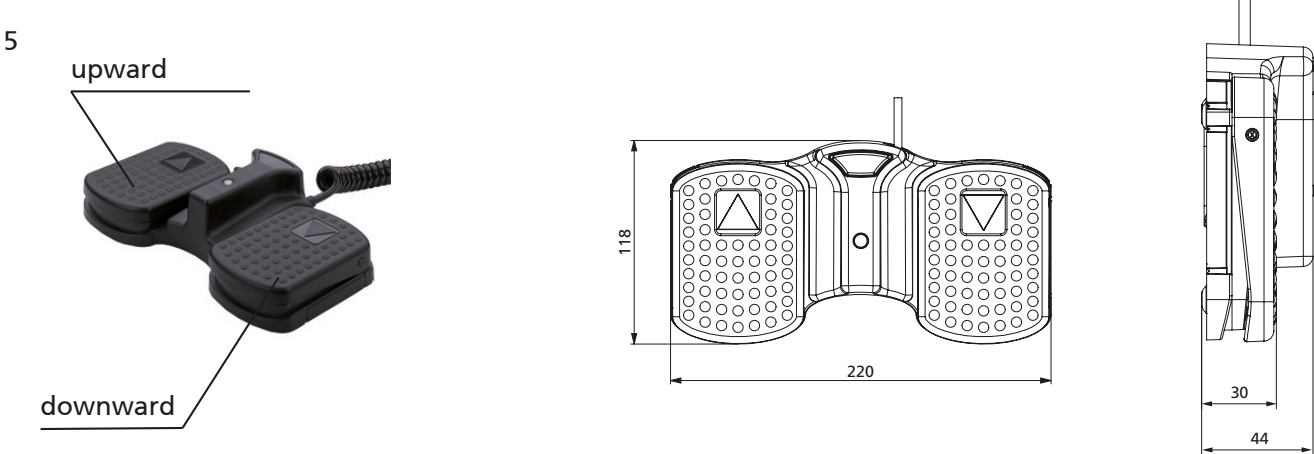


Code No.	Version	Fig.
QZB11G07AV041	Hand switch with 6 function keys and display – 1 m cable length	1
QZB11G07AB041	Hand switch with 2 function keys – 1 m cable length	2
QZD000074	Hand switch drawer for hand switches with 6 and 2 function keys	3

Remote hand switch with 2 function keys



Foot switch with 2 function keys



Adapter cable

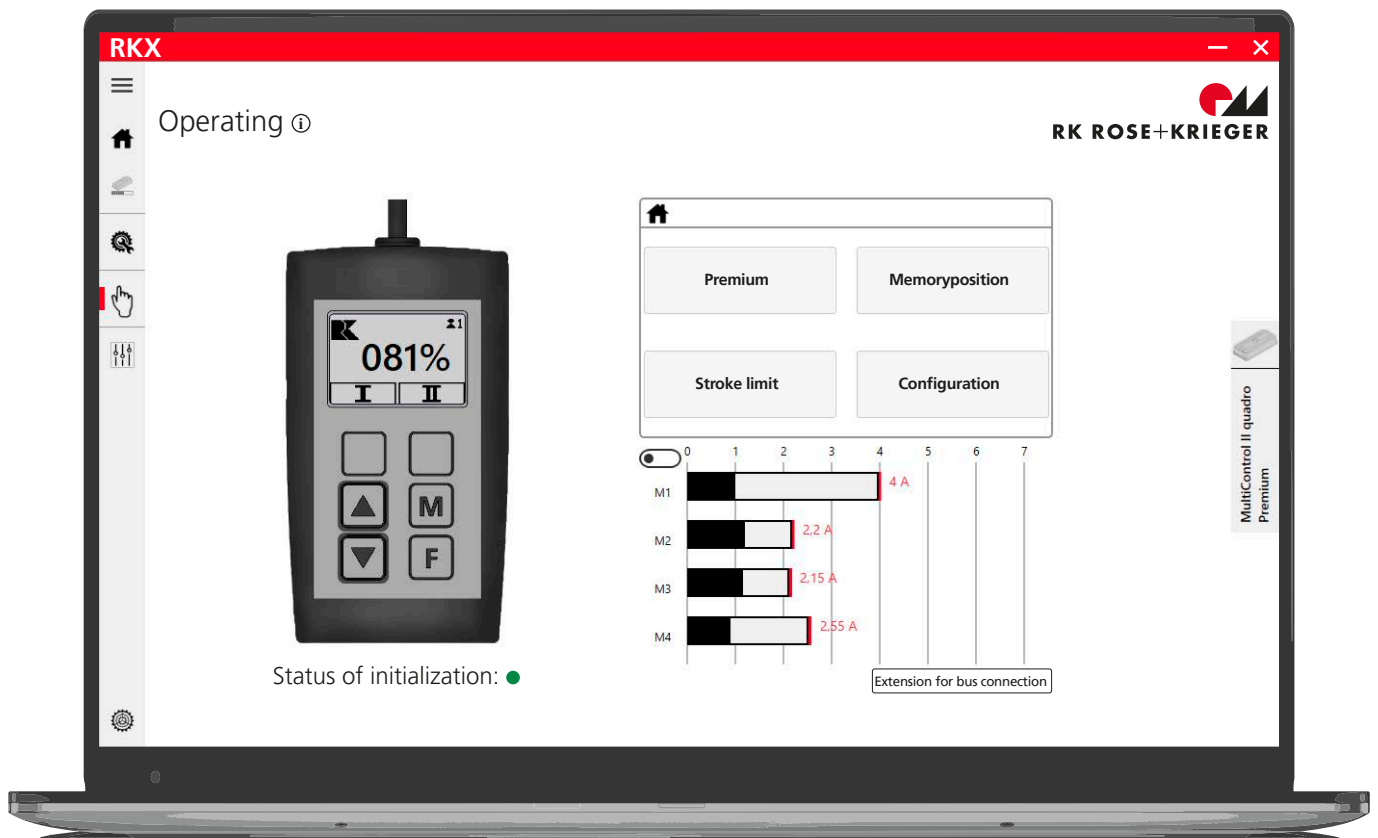


Code No.	Version	Fig.
QZB00D07BK141	Remote hand switch – 2 function keys	4
QZB02C01AE114	Foot switch – 2 function keys	5
QZD070699	Adapter cable DIN 7-pin to Molex 6-pin (Hand switch to MultiControl II) – 0.2 m	6

***Order instruction:** When using a foot switch with 2 function keys and remote hand switch with 2 function keys, the adapter cable is essential.

MultiControl II – Accessories

One interface, countless possibilities



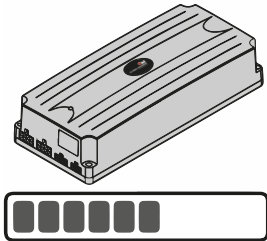
Highlights / Features:

- Easy detection of tension or an overloaded system
- Visualisation of motor current for up to 32 drives
- Storage of your requirements in configuration profiles
- Guided start-up of the system
- Software update
- System configuration
- System operation
- Read-out and export of fault history for detailed analysis

Code No.	Version
QZD070748	RKX Interface – 2 m

The **RKX** (Windows software), in conjunction with the **RKX**-interface (Cable), provides you with numerous different options for interaction with your controller. Alongside the main functions explained in the following, you can also view the prior run time, the current temperature of the controller, the number of positioning movements completed and much more.

Update



Using the **RKX** you can update the Multi Control II controllers with a new software version and thus access new functions.

Also, in the event of a replacement delivery to your end customer you can restore the individual factory settings (e.g. preactivated functions, certain software version etc.) so that integration into your customer's overall system works smoothly.

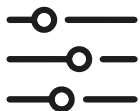
Software profiles which have been individually adapted to you or your customer by RK Rose+Krieger can also be transferred to the controller.

Service



The **RKX** also provides you with access to the fault history of your MultiControl II. This feature can be used to read out the most recent 20 reports from the controller. The entries can be used to draw conclusions relating to one-off or recurring faults, e.g. constructional distortions, faults in the voltage supply or overloaded drives. This data can be used to define further measures for optimisation of the service life and to reduce downtimes on your overall system.

Configuration



This menu item is used to configure various (pre) settings for the MultiControl II in accordance with your individual requirements. The start-up procedure for the entire system and the various premium functions can also be performed intuitively.

Moreover, the set options can be saved as (customer) profiles, allowing you to guarantee consistent functionality for your end customers

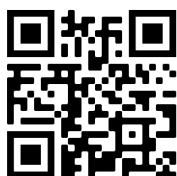
Operating



In order to check the settings made previously and determine the current motor current of your application, for instance, the drives can also be moved using the **RKX**. In addition to many further options, you can also set the premium functions (collision detection (SPP), drive group management, and relative and absolute positioning), memory positions and stroke limitation.

That way, nothing stands between you and problem-free set-up of your or your customer's application.

RKX-Software



More information

More information on our RK Rose+Krieger website.
Simply scan the QR code to find out more about our **RKX**-Software.

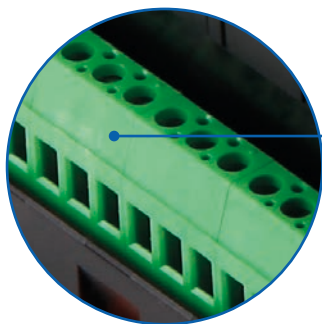
I/O - Interface



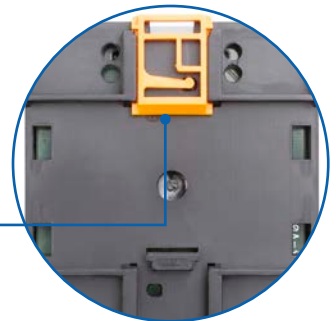
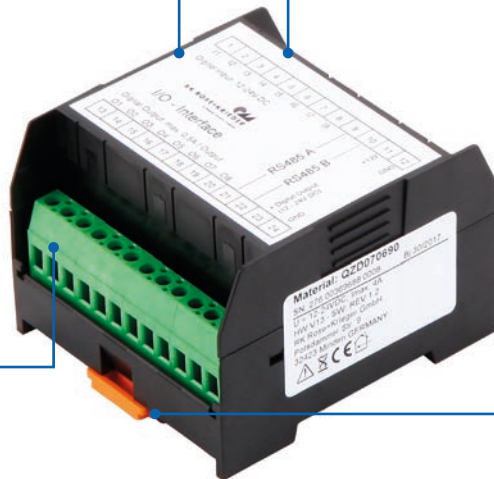
- ✓ Compatible with the MultiControl II product family



- ✓ Receives digital signals (e.g. from a PLC) as commands



- ✓ Forwards feedback from the controller to digital outputs



- ✓ Quick and easy installation in the control cabinet with mounting rail housing (TS35)

Highlights/features:

- Connecting element from MultiControl II to master control system
- Bidirectional communication between controller and master control system via 16 digital inputs and outputs
- Storing and moving to up to 7 memory positions
- Starting up the initialisation sequence
- Adjustable travel speed
- Enables resetting of errors
- Feedback to master control system (e.g. movement active, position reached, error status etc.)
- Encoder simulation A/B delivers a signal which simulates a 2-channel encoder and represents the position of motor 1.
Standard functions mean quicker and simpler programming.
- **Standard functions of the digital inputs:**
 - ✓ Status indication
 - ✓ Initialisation complete
 - ✓ Memory position reached
 - ✓ Movement active
 - ✓ Retracted status
 - ✓ Encoder simulation

Option:

- Special functions available on request
- Quick and easy storage and moving to memory positions using hand switch with 6 function keys

I/O - Interface – Table of contents

Versions	<ul style="list-style-type: none">I/O - Interface..... Page 74
Accessories	<ul style="list-style-type: none">Hand switch..... Page 79Hand switch drawer..... Page 79

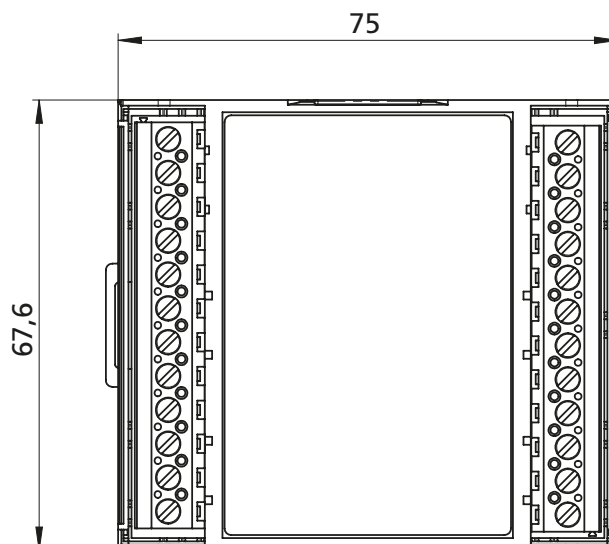
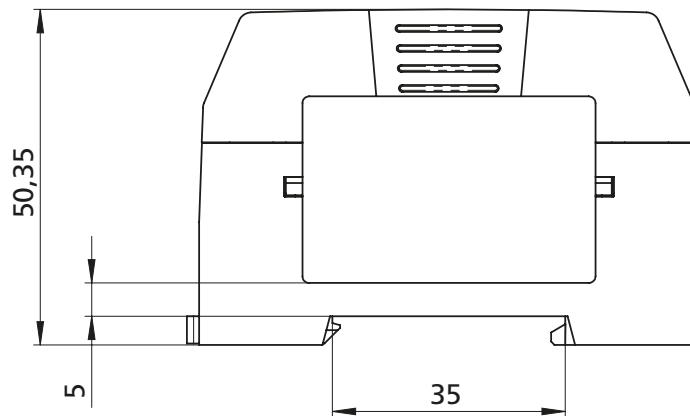
General information/operating conditions

The voltage supply for the logic of the I/O module	is provided by connecting the MultiControl II control system
Voltage supply for the digital inputs	High level: 5 V DC – 30 V DC Low level: 0 V DC – 2 V DC
Voltage supply for the digital outputs	10-30 V DC, max. 4 A
Protection class	III
Ambient temperature	0 °C to +50°C
Protection class	IP20
Dimensions	B x H x L: 67 x 50 x 75 mm

Input	Standard function
Input voltage (input 1 - input 8)	High: 5 VDC – 30 VDC Low: 0 VDC – 2 VDC
Input impedance	10 k Ohm
1	UP
2	DOWN
3	Action enabled from 3-bit mask (input 4 – 6)
4, 5, 6	3 bit mask for memory position
7	Speed (s / l)
8	Reset error

Output	Standard function	Logic level
Output voltage level O1 – O 8	High: as voltage on terminal 23 Low: GND	–
RS485 A/B	A/B	–
Power supply for the digital outputs	+ Digital output: 10 – 30 VDC, max. 4 A GND	–
1	Error status	High active
2	Initialised	High active
3	Position reached	High active
4	Movement active	High active
5	N/A	–
6	Zero position	Low active
7	Encoder simulation A	High/Low
8	Encoder simulation B	High/Low

I/O - Interface



I/O - Interface – Versions

I/O - Interface

The RK Rose + Krieger lifting column range supports a wide range of workflows in a wide range of assembly and manufacturing processes. A special data interface has now been developed in order to further optimise these workflows and increase the level of automation.

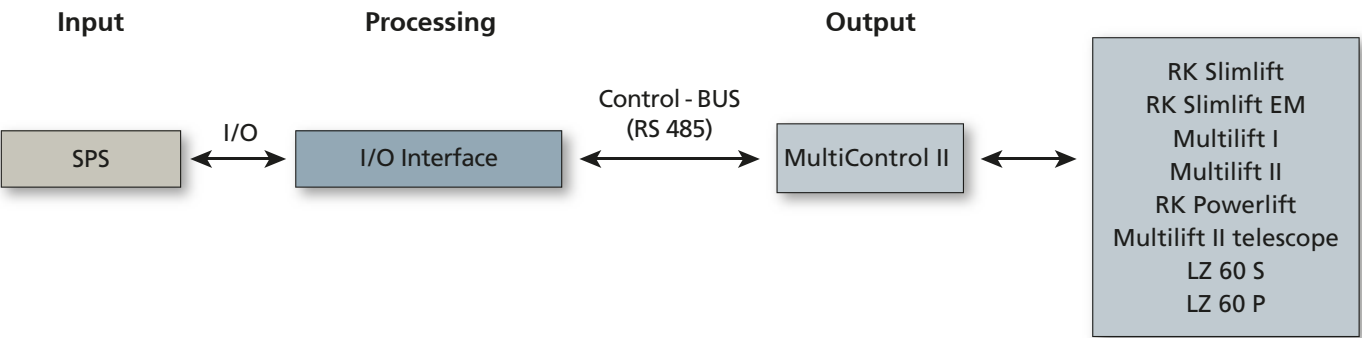
A lifting column for userfriendly setting up, for instance, can be operated using a hand switch. The ongoing production process is then controlled by PLC.



Scope of delivery:
Data interface with housing,
Connecting cable to control
(4 Meter), Documentation



Code No.	Type	Version	Interface
QZD070690	I/O - Interface	for MultiControl II	HS



Connection of a PLC

The I/O interface is used to activate the MultiControl II via digital inputs and outputs (e.g. of a PLC). For this purpose the module forwards the digital inputs to the MultiControl II as commands. The feedback signals from the controller are in turn transferred via the digital outputs.

The I/O interface thus transmits the serial RS485 interface of the MultiControl II to the digital inputs and outputs bidirectionally. All the inputs and outputs of the module are configured with standard functions. Thus the digital inputs 4, 5 and 6, for instance, are intended for saving the memory positions of the lifting column.

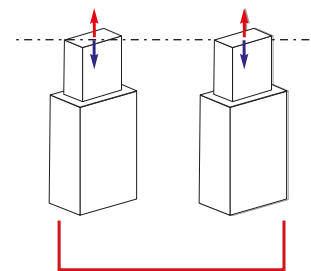
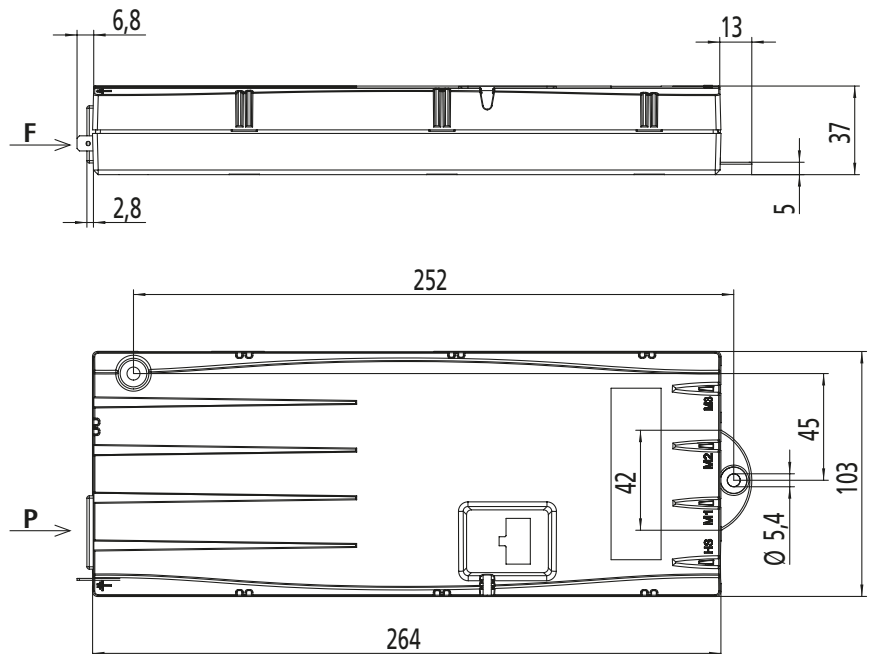
It is important to mention that the hand switch with 6 function keys simplifies the saving of memory positions considerably. It can be used to save and assume memory positions.

Please refer to the installation instructions for detailed information on the I/O interface.



Control Compact-e-3-EU

- 1 HS = Hand switch connector
- 2 M1 = Motor connector 1
- 3 M2 = Motor connector 2
- 4 M3 = Motor connector 3
- P = Power socket
- F = Cable lug for earthing of table frame (6.3 x 0.8 mm cable lug)



2 drives synchronised

Features:

- Synchronous control of up to two drives
- Duty cycle monitoring as overload protection
- Highly efficient switched-mode power supply (SMPS)
- The hand switches with display support storage of four different intermediate positions (memory) which can be called up at the touch of a button
- Acoustic status message thanks to Click Codes

Additional functions:

Adjustable by customer

- Relative or absolute height display on hand switch with display
- Programmable software end positions

General information / operating conditions

Type	Compact-e-3-EU
Compatible	Set Multilift II/Set Multilift II telescope
Input voltage	EU: 230V / 50Hz US: 120V / 60Hz (on request) / JP: 100V / 60 Hz (on request)
Output voltage	33 V
Current output	7 A
Power	231 VA
Standby-power	0,5 W
Ambient temperature	0 °C to +30 °C
Relative humidity (for operation)	5 to 90% (non-condensing)
Protection class (with earth terminal)	I
Protection class	IP 20
Dimensions (L, B, H) [mm]	264 x 103 x 37
Weight	523 g
Duty cycle (Operation mode S 3)	At nominal load, 10% (2 min operating time, 18 mins rest time)

IEC cable

Code No	Version	Typ	Cable length
QZD070618	IEC cable (Europe version, earthed plug)	F	1.80 m
QZD020159	IEC cable (Switzerland version, earthed plug)	J	1.80 m
QZD070619	IEC cable (Great Britain version, earthed plug)	G	1.80 m

Hand switches / Accessories



HSU-MDF-4M2



TOUCHbasic UD



TOUCH UD

Code No.	Vesion	Description / information	Additional functions (see page 78)	Cable length	Fig.
QZB30E07BR126	HSU-MDF-4M2	Up to 4 memory positions/Display	•	1.90 m	1
QZB30E07BN126	TOUCHbasic UD	2 Up-/Down function		1.80 m	2
QZB30E07BP126	TOUCH UD	Up to 4 memory positions/Display	•	2.00 m	3

Features:

HSU-MDF-4M2



- Up to 4 memory positions
- 2 Up-/Down function
- 3- digit display
- Membrane key pad slim design

TOUCHbasic UD



- 2 Up-/Down function
- Large keys

TOUCH UD



- Up to 4 memory positions
- 2 Up-/Down function
- 4- digit display for „inch“ or „cm“
- Key Lock

TOUCH UD (retractable)



- Mounting under table top
- Ultra-flat design

RK Rose+Krieger GmbH
Connecting and positioning systems
Potsdamer Straße 9
32423 Minden, Germany
+49 571 93 35-0
info@rk-online.de
www.rk-rose-krieger.com



Brochure PDF file
to download